

Tactics of the Russian Army in the Napoleonic Wars.

Volume 2



Order of St. George 1st Class.

By Alexander Zhmodikov & Yurii Zhmodikov

Tactics of the Russian Army in the Napoleonic Wars.

**Volume 2
Tactical Changes in
Response to Napoleon – 1810-1814.**

By: Alexander Zhmodikov & Yurii Zhmodikov



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Part III

Tactical Changes in Response to Napoleon – 1810-1814.

Introduction.

Intensive fighting during the previous years showed that the organization and tactics of the Russian Army was not up-to-date. During the 1806-07 campaign, the tactics started to change and after the campaign, the new formations and methods were documented in various instructions and work on new drill regulations started.

Russian military literature became more original. In 1807 the first volume of a book, titled *General Essay on Tactics*, was printed. It was written by A.I.Khatov, a *podpolkovnik* (lieutenant-colonel) in the Russian General Staff. It was a compilation of works of various French military writers, mainly Guibert and Mesnil-Durand; there were only a few original passages. The second volume, published in 1810, was a much more original work. It contains references to the experience of the fighting against the French in 1807 and ideas on how to fight against them. Two new journals appeared in which articles written by Russian officers were published: the *Artillery Journal* in 1808 and the *Military Journal* in 1810.

To spread the new drill formations and methods through the whole army, two old methods were used: officers from each division were sent to St.Petersburg for several monthsⁱ and officers of the Guard, which was usually the first and best trained in any new techniques, were transferred to the army regiments.ⁱⁱ For example, Ya.O.Otoshchenko, a captain in the 7th Jager Regiment in 1809, was sent to St.Petersburg (arrived 7/19 January 1810), since, as he explains, he was the senior captain in his division (i.e., he was promoted captain earlier than any other captain in the division). He was sent to the 1st Training Battalion, where he was trained for more than a half of a year. In July 1810, he passed an exam and on 1/13 August 1810 he was promoted major and appointed to the 14th Jager Regiment.ⁱⁱⁱ M.M.Petrov writes in his memoirs that in 1811 he was the senior captain in the 1st Jager Regiment and that, in December, he was ordered to Petersburg, where he passed an exam, was promoted major in February 1812 and returned to his regiment.^{iv} In 1808 an artillery training company was formed, in which officers and men chosen from all artillery companies were trained under the command of Major-General A.Euler, a grandson of the famous mathematician Leonard Euler.^v To maintain the uniformity of drill maneuvers within an army acting in a remote area, one officer from each division was sent to the commander of the best division in the army, who had to show the maneuvers and to give written instructions to the officers from other divisions.^{vi}

There were heavy losses among officers during the previous period and many new regiments were formed, so a large number of new officers was needed. The cadet corps and the usual way of promotion through the three years of service as NCOs could not give the necessary number of new officers. To train young noblemen in a short time, the Volunteer Corps (in 1808 renamed the Noble Regiment) was organized in 1807 at the 2nd Cadet Corps. Any nobleman of sixteen or older might join the Corps. The program of the training consisted in infantry drill, mainly. To train cavalry officers, a Noble Squadron

was organized in 1811 in addition to the Noble Regiment.^{vii} The possibility to quickly become an officer and the general rise of patriotic feelings in Russia provided the necessary number of officers. Duke Eugen von Württemberg wrote after the wars, that in general, Russian officers were very brave.^{viii}

Soldiers were trained to do only what was really very necessary in war; any unnecessary formalities were abandoned.^{ix} The punishments became much more light and, in general, the treatment of the soldiers became much more humane.^x In 1811 Kutuzov wrote in an order to the divisional commanders of the Army of Moldavia: "I recommend you to turn your main care to aimed fire, the state of weapons and all the things that pertain to the real profit of the service, at the same time disallowing all those unnecessary things, which deviate from the essence, preoccupying the soldier in an annoying manner and burdening him. I am sure that subordination and discipline, being the soul of the military service, will not elude your attention in their genuine sense and not in the false opinion that these important ideas are maintained by cruelty only."^{xi}

Many sources state that, before the 1812 campaign, the Russian troops were well-trained and ready for a new war. For example, I.T.Radozhitskii, an officer in the 3rd Light Artillery Company, writes: "The troops were well-equipped and drilled; the soldiers were tall, well-proportioned, good, waiting with impatience for the offensive campaign abroad, to strike the French according to the old custom."^{xii} Unfortunately, most regiments were still billeted in villages in peacetime. Maneuvers at the divisional level are mentioned in documents and memoirs, but large-scale maneuvers were rare.

At the beginning of the 1812 campaign, Russians had fewer troops than the French. The Russian armies were separated and stretched along the western frontier and, at the first stage of the campaign, the Russians were forced to retreat in order to concentrate their armies. There were several minor engagements during the retreat. Eventually, the 1st and 2nd Russian armies joined at Smolensk (20 July/1 August). Unfortunately, the combined armies were still not strong enough and, after an indecisive attempt at a counteroffensive and heavy fighting at Smolensk (5-6/17-18 August), they continued to retreat.

There were difficulties in cooperation between the army commanders, Barclay de Tolly and Bagration, because they were very different in their character and experience: Barclay was cold in manner; his rapid rise in rank from Major-General to General of Infantry and appointment to the post of Minister of War excited envy, he was not connected to high society, and he distrusted his subordinates. As a result, he had many enemies and the troops did not like him.^{xiii} Bagration was an almost exact opposite of Barclay. He was famous for his actions in the 1799 campaign under Suvorov and the 1805 campaign under Kutuzov; he was well-connected, he had a pleasant way, he trusted his subordinates and they liked him.^{xiv} Although they were equal in rank, Bagration was promoted General of Infantry earlier than Barclay, so he was considered senior, but Barclay was Minister of War and his army was larger than Bagration's, so Bagration recognized Barclay as his superior, but often criticized his decisions and argued against him.

The troops did not trust Barclay and morale was low because of the long retreat.^{xv} After Smolensk, army morale fell even further,^{xvi} and the troops suspected that Barclay was a traitor.^{xvii} The arrival of the new C.-in-C., M.I.Kutuzov, raised the spirits of the troops.^{xviii} The high command was united and some reinforcements had arrived. Having

found a suitable position, Kutuzov decided to give battle. At the hard-fought battle of Borodino (26 August/7 September 1812) the Russian armies took heavy casualties, and abandoned the field on the next day. However, Borodino was not such a decisive victory of Napoleon as Austerlitz and Friedland. At Borodino, the Russian Army was not forced to retreat in disorder as it was at Austerlitz and Friedland, but held out until nightfall and retreated according to Kutuzov's order. Unable to stand, Kutuzov decided to retreat and abandoned Moscow.

Napoleon occupied Moscow and there was a lull in the campaign. The 1st and 2nd Russian armies stayed in the Tarutino camp for some time; they were reorganized into a single army (16/28 September), its ranks replenished with recruits and then the Russians attacked the French advance guard (6/18 October), forcing it to retreat. Napoleon quit Moscow because of supply problems and tried to march south. Some say that he tried to march over unravaged territory, where he could feed his army, but another perspective is that he chose to retreat safely to Smolensk. To make a good impression on his army, Napoleon made a second effort to engage and defeat Kutuzov. Napoleon was stopped at Maloyaroslavets (12/24 October), that turned back and retraced the path of his invasion towards Smolensk as the Russian Army followed him using a parallel route. There were several engagements during the retreat of Napoleon's army, the most important of which were at Vyazma (22 October/3 November), at Krasnoi (near Smolensk, 5-6/17-18 November) and at the Berezina River (16/28 November). There were also several battles in other places during the campaign; the most important were the two battles of Polotsk (4-6/16-18 August and 6-8/18-20 October), in which the 1st Russian Infantry Corps, later reinforced by troops from Livland and Finland and the St.Petersburg militia, under the command of General P.C.Wittgenstein, fought against French marshals Oudinot and St.Cyr.

As a result of the 1812 campaign, Napoleon's army was almost wholly destroyed. Prussia allied with Russia. However, Napoleon managed to build up a new army and the struggle continued. During the campaigns of 1813-14, Russian troops were divided and included into all major allied armies, and so they took part in all the important battles of those campaigns.

Chapter 1.

Infantry Organization.

A new organization was introduced by a decree issued by Alexander I dated 12/24 October 1810.^{xix} According to this decree, each grenadier, or musketeer, or jager regiment consisted of three battalions. All battalions in musketeer regiments were named musketeer battalions; in the grenadier regiments – fusilier battalions, and in the jager regiments – jager battalions. Each battalion consisted of four companies. One company in each battalion was named grenadier company and consisted of two platoons: a grenadier one and a *strelkovyi* (*tirailleur*) platoon. Men had to be selected for membership in the grenadier companies, not by virtue of their height, but for their good conduct and bravery. From all men selected to be grenadiers, taller men were to be placed in the grenadier platoon; smaller ones – in the *strelkovyi* platoon. When a battalion was formed in line, the grenadier platoon was on the right flank, with the captain and *podporutchik* (sub-lieutenant); the *strelkovyi* platoon – at the left flank, with the *porutchik* (lieutenant) and *praporshchik* (ensign). The second battalion of each regiment was designated as the reserve or depot battalion; it was to remain at the regimental quarters during campaign, except its grenadier company, which was to go on campaign with the regiment. Grenadier companies of reserve battalions were to be formed into converged grenadier battalions of three companies each (two battalions in each division). Each regiment consisted of 65 officers, 132 NCOs, 60 drummers and musicians, 2,310 privates and 160 noncombatants.^{xx}

It was strictly prescribed that the grenadier companies of the reserve battalions had to be of the same quality as other grenadier companies.^{xxi} M.S.Vorontsov, commander of the Converged Grenadier Division of the 2nd Army in 1812, writes that his battalions “consisted of soldiers who had gained experience during long campaigns and numerous battles, excluding the battalions of [General] Neverovskii’s [newly formed 27th] Division, who were grenadiers only by name, their height and goodwill.”^{xxii} The grenadiers and *strelki* were saved from any corporal punishment by a decree issued on 12/24 October 1812.^{xxiii}

These changes were not applied to the guard regiments and the Leib-Grenaderskii (Life-Grenadier) Regiment. In February 1811, all musketeer regiments were renamed infantry regiments (although the musketeer companies were still called musketeers).^{xxiv} In March 1811, all Guard Infantry Regiments were reorganized in the pattern of the line infantry.^{xxv} At the same time, new rules of bringing the guard and grenadier regiments up to strength were introduced. On 1/12 December of every year, each grenadier, infantry, and jager regiment had to send four grenadiers and two *tirailleurs* to St.Petersburg (936 men in total), where they were distributed among the Guard Infantry Regiments. The grenadier regiments received men from infantry divisions assigned to them; each regiment had to send six grenadiers and nine *tirailleurs* to “their” grenadier regiment.^{xxvi}

Infantry regiments were organized into standing divisions consisting of four infantry regiments formed into two infantry brigades and one jager brigade of two jager regiments. Grenadier regiments were organized into grenadier divisions of six grenadier regiments each. An artillery brigade was attached to each division. Two infantry divisions

formed an infantry corps. One light cavalry regiment, usually a hussar one, was attached to each infantry corps.

In March 1812, there were six Guard infantry regiments (Preobrazhenskii, Semenovskii, Izmailovskii, Litovskii [Lithuanian], Finlyandskii [Finland] and Jager) and one Guard Infantry Battalion (Marine), fourteen grenadier regiments, 96 infantry regiments, 50 jager regiments, and four marine regiments.^{xxvii} In the beginning of the 1813 campaign, the Life-Grenadier and Pavlovskii Grenadier Regiments were incorporated into the Guard; the Keksgolmskii (Kexholm) and Pernovskii Infantry Regiments were named grenadier regiments for their performance in the previous campaigns.^{xxviii}

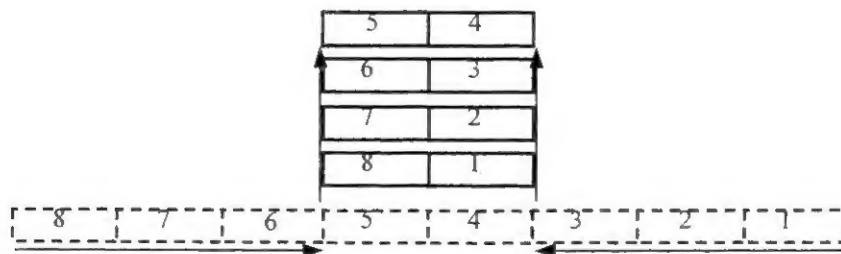
Chapter 2

Theory, Regulations, Instructions and Training.

In theory, the three-rank line was still considered the most useful formation of infantry on a battlefield. A.I.Khatov wrote, in the first volume of his book, titled *General Essay on Tactics*, published in 1807, that the interval between battalions in line was to be equal to 18-20 paces.^{xxxix} Khatov considered fire by platoons useful only when infantry defended field fortifications or fought against irregular troops; fire by ranks and battalion volley – only against cavalry or when infantry defended a fortified position and the enemy attacked with cold steel. He argued that the most useful fire in real battle was fire at will or “battle fire”.^{xxx} Khatov wrote that infantry could either fire or march, but not both at the same time, because the marching prevented effective fire and the firing prevented a rapid march. He added that some officers considered it useful to fire one volley at a range of 40 paces in a bayonet charge and that retreating infantry might stop and fire one volley to drive off the pursuing enemy.^{xxxi}

Khatov discussed the use of columns as assault formations in the first volume of his book, but he believed that one needed to use columns mainly in attacks on enemy fortifications or positions with limited access.^{xxxii} He recommended forming columns by marching by files (“to form column by rolling up [the line]”) and to use battalion columns formed on the center as the fastest way of forming line from column and column from line.^{xxxiii} He discussed formations of a battalion consisting of eight platoons, stating that, when forming column from line, the fourth and fifth platoons were to march forward, while the other platoons marched by files to the center and then followed them (see Fig.18). As a result, his description of battalion column formed on the center is almost the same as in Kutuzov’s order issued in 1805. Such a column was to be used in attacks, to march through defiles, to move one infantry line through another (called a “passage of lines”) and in any other case, if it was known beforehand that there would be enough space to deploy the column into line to both sides.^{xxxiv}

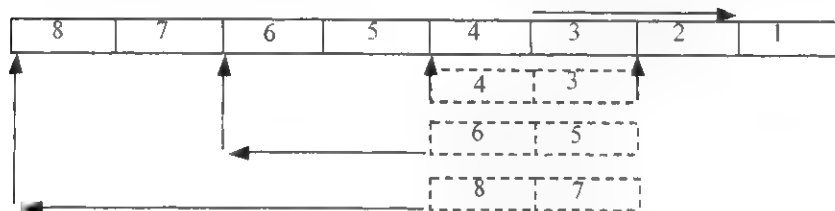
Fig. 18. Battalion forms closed column on the center from line.



Khatov considered attacks in closed columns dangerous and wrote that a closed column was usually in full disorder, even after a successful attack, and so it was impossible to form it in line and to hold the captured position.^{xxxv} Closed columns had to have a distance of three paces between its successive parts, they were to march to attack at a fast pace and at a distance of 30 paces from the enemy advance at a run. Open columns, with full distance or half-distance, were to be used to move infantry over the battlefield in the

presence of an enemy. The former was to form a line parallel to the direction of the march by quarter-wheeling its platoons to either flank; the latter could form a line perpendicular to the direction of the march by moving its platoons by files.^{xxxvi} To deploy a column of platoons in line faced in the same direction, Khatov recommended forming a column of divisions first and only then deploying it into line (see Fig.6). Rear divisions (a division consisted of two platoons) were to march by files to the right or left and then forward into alignment with the front division.^{xxxvii} He admonished his readers against deploying under heavy enemy fire.^{xxxviii}

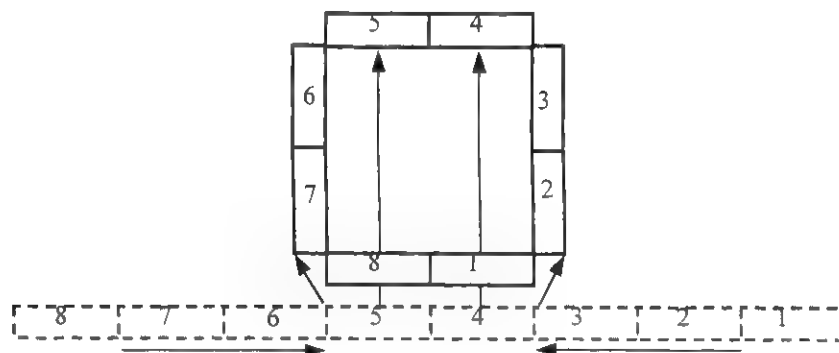
Fig. 19. Deployment of closed column of divisions into line.
Khatov, *General Essay on Tactics*, vol.1, Plate V, Fig. 26.



Closed column of divisions formed on the right could be deployed into line either on the second division, as is shown above; either on the third division; either to the left (see. Fig.6); either to the right.

Khatov recommended various methods of forming a battalion square from a line.^{xxxix} One of them is the same as shown in Fig.5. The second method is almost the same, but the first and eighth platoons marched by files. The third method is shown in Fig.20. To form square from open column of platoons, he advised forming a column of divisions first.^{xl}

Fig. 20. Battalion forms square from line.
Khatov, *General Essay on Tactics*, vol.1, Plate XV, Fig.69.



In the second volume of his book printed, in 1810, Khatov recommended forming the battalions of the first line in line, but that the battalions of the second line remain formed in columns.^{xli} An anonymous author of an article published in the *Military Journal* the same year wrote that infantry was to be formed in battalion columns, but if it should be necessary to stand at the same place for a long time under enemy fire, it would be better to form the battalions in line.^{xlii}

In 1808, a book entitled *Notes on the Latest Changes in the Drill* was printed. Various ways of forming columns were described in it, including formation and deployment of columns by marching by files (the term was "to form column by rolling up [a line]") and a new method of firing by files was prescribed. In this new method, firing had to be started on a drum signal from the right flank of all half-platoons; files were to fire one-by-one, then to reload as quickly as possible and fire again, and so on.^{xliii}

The first part of new infantry regulations titled *School of Recruits or Soldiers* appeared in 1809 and in 1811 it was printed, together with the next part, titled *Company Drill*. The organization of an infantry battalion remained, in principle, the same. Each infantry battalion consisted of four companies and was divided into eight platoons. The platoons within one battalion had to contain an equal number of files and it was permissible to transfer men from one company to another in order to make all platoons equal. Only the grenadier and *strelkovyi* platoons were excepted from this rule. Each platoon was divided into half-platoons and sections; a section had to consist of not more than six, but not less than four files. The grenadier platoon and the first musketeer platoon formed the first division, the second and third musketeer platoons formed the second division; the fourth and fifth musketeer platoons formed the third division and the sixth musketeer platoon and the *strelkovyi* platoon formed the fourth division. The distance between the ranks was equal to a half of an *arshin* (0.355 m), measuring from the back of the front-rank man to the chest of the next-rank man. The most efficient and able men were to be placed on the flanks of platoons, half-platoons and sections. Recruits went into the second and third rank.^{xliv}

In the ranks, men had to stand elbow-to-elbow.^{xlv} Recruits were first taught individually to stand and to march at a slow and fast pace.^{xlvi} The length of the pace was equal to one *arshin* (0.71 m); the slow marching rate was 75 paces per minute; the fast marching rate was 110 paces per minute.^{xlvii} Men had to be trained to march, not only directly forward, but also obliquely, using two different methods. In the first method, men stepped forward and slightly to the right or left. In the second method, each man made an eighth-turn to the right or left, marched straight forward and then made an eighth-turn to face the original direction. The second method was considered to be a quicker and more convenient way of moving any formation obliquely.^{xlviii} Then recruits were trained to handle the musket.^{xlix}

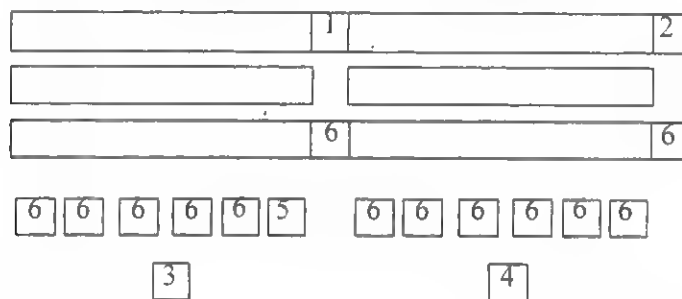
When recruits had been trained individually well enough, they were formed into small groups to teach them to load and fire their muskets standing in formation. They were trained to fire directly forward and obliquely to the left and right (men half-turned at their places) by files. The first and second rank fired their first shots, file-by-file and then loaded and fired as quickly as possible. Each man in the second rank, having fired his musket, passed it to the man in the third rank standing behind it, took his musket, fired, loaded it, fired again and then returned it to the man in the third rank and took his own musket from him, and so on. Men in the third rank did not fire at all. They only loaded

muskets and passed them on to the second rank.ⁱ This method of passing of muskets from the third rank to the second one was borrowed from the French and, as I.Kh.Butovskii writes, often caused confusion.ⁱⁱ

After being trained in firing techniques, the recruits were trained to march in formation and with muskets, directly and obliquely, using both methods of oblique march, to keep alignment, to wheel by platoons and sections and to march by files.ⁱⁱⁱ

This done, the recruits were distributed to companies and each company carried out all the basic elements of the training: firing, marching, wheeling, etc. One had to try to train the soldiers to load and fire their muskets at least three times per minute.ⁱⁱⁱⁱ Each company was trained to fire volleys by the whole company, by ranks, by platoons and by files. The firing by files started from the right flank of the platoon or half-platoon.^{liv} Soldiers were taught to cease fire with a drum signal.^{lv} Soldiers were also trained to fire to the rear. To do so, the whole company about faced; the officers and NCOs of the file closers rank moved behind the line and the soldiers fired by all the methods mentioned above (in the firing by files, firing started from the left flank of the half platoon and the first rank had to do what the third did in the normal firing).^{lvi}

Fig. 21. Infantry Company 1809-1819.



1 – *Kapitan* (captain)

2 – *Porutchik* (lieutenant)

3 – *Podporutchik* (sublieutenant)

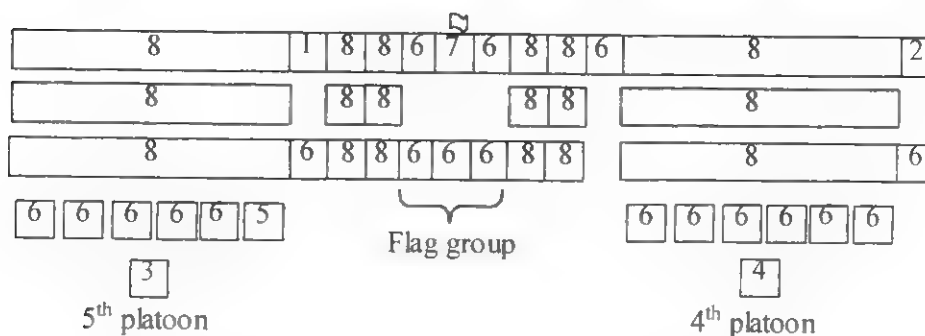
4 – *Praporshchik* (ensign)

5 – *Feldwebel*

6 – *Unter-ofitser* (NCO)

In the right flank platoon of a battalion (the 1st or grenadier), the captain was on the right flank, the sublieutenant – behind the platoon. In the left flank platoon of a battalion (the 8th or *strelkovyi*), the lieutenant was on the left flank, the ensign – at the right flank.

Fig. 22. Central part of battalion (the 2nd company) 1809-1819.



- | | |
|---|--------------------------------|
| 1 – <i>Kapitan</i> (captain) | 5 – <i>Feldwebel</i> |
| 2 – <i>Porutchik</i> (lieutenant) | 6 – <i>Unter-ofitser</i> (NCO) |
| 3 – <i>Podporutchik</i> (sublieutenant) | 7 – <i>Flag bearer</i> |
| 4 – <i>Praporshchik</i> (ensign) | 8 – <i>Privates</i> |

The flag group always was at the right flank of the 5th platoon, except while in square.

At this point, each company was trained to march in column by files and to form line, column of platoons and column of sections from column of files.^{lxvii} Then the company was trained to form column of platoons from line by wheeling its platoons, to march in column of platoons changing direction in the process and to form line again.^{lxviii} Then the company was trained to do the same by sections.^{lix} There were three kinds of columns: columns at full interval, columns at half-interval, and closed columns. In column at full interval, the distance between its successive parts was equal to the frontage of a part (platoon or two platoons), measuring from the front rank of any part to the front rank of the next part. In column at half-interval, the distance was equal to a half of the frontage of a part, measuring in the same way. In closed column, the distance was equal to three paces from the rear rank of any part to the front rank of the next part.^{lx}

During long marches, infantry were to march in column of platoons at a free pace (85-90 paces per minute).^{lxi} Men were trained to form columns of sections, half-platoons, or files from column of platoons and back into column of platoons on the march,^{lxii} and to form a line faced any direction from column of platoons.^{lxiii}

In the training of infantry, special attention was paid to the training in aimed fire. Kutuzov considered training in aimed fire as one of the most important parts of training and prescribed to those who were to inspect infantry regiments to test the marksmanship skills of the soldiers.^{lxiv} Ya.O.Otoshchenko, an officer in the 14th Jager Regiment, mentions in his memoirs that, when the regiment was inspected by General E.I.Markov, the soldiers were tested in aimed fire.^{lxv}

Various recommendations on the training in aimed fire can be found in Russian military literature of the period. In the first volume of his book, published in 1807, Khatov recommended to use a board six feet high, divided into three equal parts, as a target. He wrote that, at a range of 150-180 paces one had to aim at the middle part to hit the upper part or to aim at the lower part to hit the middle one. At a range of 300 paces, one had to aim at the border between the lower and middle parts to hit the middle part; at

the border between the middle and upper part to hit the upper part. At ranges longer than 300 paces, one was to aim at the upper part to hit the middle; at the middle to hit the lower. He added that infantry fire was effective at ranges of up to 250 paces and that the first shot was the most effective.^{lxvi} However, when discussing musket fire in battle, he wrote that at a range of 150-200 paces, one should aim at the knee level; at a range of 300 paces – at the half-height of a man; at a range of 400 paces – at the headgear of the enemy.^{lxvii} He wrote that the pace was to be from two-thirds to three-fourths of an *arshin* long (0.47-0.53 m),^{lxviii} so the ranges are 70.5-106 m, 141-159 m and 188-212 m respectively.

In 1809 a small book, entitled *A Brief Instruction on the Soldier's Musket*, was printed by the Artillery Committee. It contains instructions on the disassembling, cleaning and repairing of the musket, making of cartridges and also basic information on the trajectory of the ball, rules of aiming and instructions on training in aimed fire. It written that to aim at the waist level, regardless of the range, is a wrong method.^{lxix} Firing at ranges longer than 120 *sazhen* (256.08 m) was considered a waste of ammunition. A range of 70 *sazhen* (149.38 m) or less was considered the most effective.^{lxx} As in Khatov's book, a wooden board six feet (1.83 m) high divided into three equal parts painted in different colors was recommended for use as a target. It was prescribed that, at a range of from 50 to 100 *sazhen* (106.7-213.4 m), one had to aim at the middle of the middle part; at 150 *sazhen* (320.1 m) – at the top of the upper one and that one was never to aim lower than knee level. It also recommended a dummy be made from wooden boards and that it be placed on uneven terrain, lower or higher than the firing men. Some information on visibility at various ranges was also provided. It stated that at a range of 2,000 paces, masses of troops can be seen; at 1,500 – cavalry and infantry can be told apart; at 1,000 the head can be distinguished as a part of the body, at 600 – the man can be clearly seen; at 300-400 – the face and collar, and at 70-100 the eyes appear as dots. It was recommended that, at 70-100 paces, one aim at the waist level and at 300-400 one should aim at the head. If it was necessary to fire at a range longer than 400 paces, one should aim 2-3 feet above the heads of the enemy.^{lxxi} The authors of this book did not specify the length of the pace, but their pace is probably longer than that of Khatov, perhaps one *arshin* (0.71 m) as it was officially prescribed, so the ranges are 49.7-71 m and 213-284 m respectively.

In an article published in the *Military Journal* in 1810, an anonymous author recommended, when firing a musket, that one aim at the waist level at a range of 100-150 paces; at a range of 150-200 paces, aiming at the chest level and at a range of 400 paces aiming over the heads, although he warned that at the latter range, the fire would be ineffective. The author of the article also added that one should never aim lower than the waist level.^{lxxii} As can be seen in two other articles published in the *Military Journal* in the same year, experienced officers were more skeptical. They believed that only picked men could fire at a range of 300 paces or 100 *sazhen* (213.4 m), and that regular soldiers, even jagers, should fire only at 120-180 paces or 40-60 *sazhen* (85.36-128.04 m).^{lxxiii}

The 1811 infantry regulations also contained recommendations on the training in aimed fire. It was prescribed that each battalion had to have several wooden boards 2.75 *arshin* (1.9525 m) high and one *arshin* (0.71 m) wide, painted black, with two horizontal white strips four *vershok* (0.1778 m) wide; one at a half-height of the board and another along the top of it. Soldiers were to be trained to fire at these boards; first at a range of 40

sazhen (85.36 m), then at 80 *sazhen* (170.72 m), aiming at the lower white strip and, finally, at a range of 120 *sazhen* (256.08 m), aiming at the upper white strip. An earthen embankment was to be raised behind the boards to make it easy to find the bullets for re-use. The boards were to be placed not only at a level ground, but sometimes also on slopes, above or below the firing men. Each company had to have a list of the best marksmen.^{lxxiv}

Barclay de Tolly, who became the Minister of War in 1810, issued several orders on the training in aimed fire in 1810-11. He wrote that the training in aimed fire is one of the most important parts of the soldier's training, but that, in many regiments, men were not trained in aimed fire. He insisted that the officers, who would train soldiers, had to be themselves trained in aimed fire. The officers had to train the soldiers in small groups, not more than ten men at a time and to teach each soldier to observe the deviation of the bullet from the intended point so as to be able to correct his aim. He also recommended training men to fire with fixed bayonets and in full kit.^{lxxv} Training in aimed fire is often mentioned in Kutuzov's orders and time after time he reminded the importance of this to his subordinates.^{lxxvi}

However, these orders probably had little effect, as can be seen from what Barclay de Tolly wrote in his order to the 1st Western Army (11/23 May 1812): "The C.-in-C. recommends to all commanders of the troops to turn their attention to [ensure] that [their men] aim carefully and not hurry their fire. After all repeated orders on that, one should expect greater success in such an important object of the training, but, nevertheless, it is noticed in some regiments that [the men] are not exercised actively enough. The purpose of the training is not in that [men] would pull the triggers evenly and all at the same time, but that [men] would aim well and thoroughly and would not waste their ammunition. The observance of this is so necessary and so important, that those who fail to observe these rules will be punished."^{lxxvii}

As can be seen from this order, many officers used old methods of training; i.e., they trained their men to fire volleys without much attention to whether their men aimed their muskets or not. Another reason of insufficient training in firing was that too little ammunition was allocated to the purpose; six cartridges per man per year,^{lxxviii} or even less. For example, in the beginning of 1812, the commander of the Moskovskii (Moscow) Infantry Regiment ordered live cartridges at a rate of three per man per year.^{lxxix} In 1810 it was ordered that regiments, which took part in military actions, were to be given no powder and lead for training at all.^{lxxx} One probably decided that they had enough practice in firing. Various methods were used to compensate for the shortage of lead bullets. The author of one of the articles mentioned above, published in the *Military Journal* in 1810, recommended to use clay bullets to train men to fire at a range of 40-60 paces and only then to use lead bullets to train men to fire at a range of 150-200 paces. He also advised the use of a sand embankment behind the target to stop the bullets and written that lead bullets could be melted and refounded up to ten times.^{lxxx1} M.M.Petrov, commander of the first battalion of the 1st Jager Regiment in 1812, writes in his memoirs that, in Tarutino camp, recruits were trained to fire at a target with clay bullets.^{lxxxii}

In their orders written before the battle of Borodino, both Kutuzov and Barclay de Tolly reminded their officers that they had to ensure that the troops would fire only at effective ranges, aiming accurately and and not hurrying.^{lxxxiii}

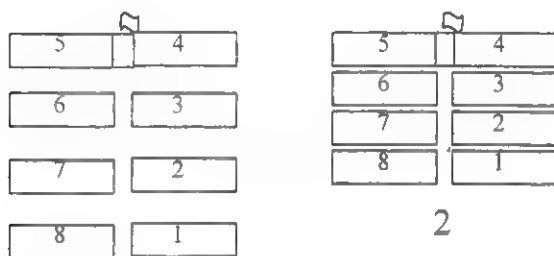
An interesting document titled *Instruction to Infantry Officers on a Day of Battle* was spread through the army at the beginning of the 1812 campaign.^{lxxxiv} It was a modified version of an instruction written by General M.S.Vorontsov for the officers of the Narvskii Infantry Regiment in 1810.^{lxxxv} Various recommendations from these instructions will be discussed in the next section, as they are more concerned with formations and tactics.

The last part of the new infantry regulations, entitled *Battalion Drill*, appeared only in the 1816 edition of the regulations and so it had no influence on infantry training and tactics in 1811-14. However, it is the earliest accessible official source in which the formations mentioned in contemporary orders, reports and memoirs are described: "attack column", "square against cavalry", etc. According to the 1816 edition of the infantry regulations, all formation changes had to be carried out at the fast marching rate.^{lxxxvi}

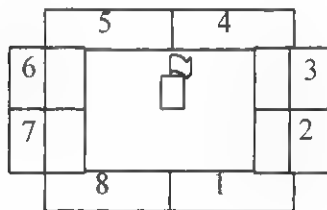
"Battalion attack column", described in the 1816 edition, is, in principle, the same as "battalion column formed on the center" prescribed by Kutuzov in 1805 and described

by Khatov. It was to be formed in the same ways (Figs. 14 and 18). The only difference was that, in battalion attack column, the distance between its successive parts was prescribed exactly as equal to a half of the frontage of a platoon (see Fig.23).^{lxxxvii} Closed battalion columns formed on the center and column of divisions are also described in the regulations.^{lxxxviii}

**Fig. 23. Attack column (1)
and closed column formed on the center (2)**



**Fig. 24. Square against cavalry
formed from attack column.**



divisions: the 1st and 2nd platoons formed the front part; the 3rd and 5th formed the right side; the 4th and 6th formed the left side; and the 7th and 8th platoons formed the rear part.^{xc1}

Chapter 3

Battlefield Formations and Tactics.

On the 1812-1814 battlefield, Russian infantry was usually formed in battalion columns. Line was formed only when it was necessary to stand in the first line in defense on open terrain for a long time, or when a commander intended to meet the enemy with heavy fire. At this point, both theory and practice seem to be in agreement. At the rearguard combat at Ostrovno (13/25 July 1812) the battalions of the first line were formed in line.^{xcii} I.P.Liprandi, a quartermaster officer in the 6th Infantry Corps in 1812, writes that at Borodino the corps was formed in two lines: the battalions of the first line were formed in line and the battalions of the second line were formed in battalion columns.^{xciii} As can be seen in the memoirs of General N.N.Raevskii, the battalions of the first line of his 7th Infantry Corps were also formed in line at the beginning of the battle of Borodino.^{xciv}

Duke Eugen von Württemberg mentions in his memoirs that at Borodino, when his 4th Infantry Division was moved from the right flank of the army to the center and Barclay de Tolly ordered him to march to the Raevskii Battery, the second brigade of his division was in the first line, its battalions formed in battalion columns of attack and the first brigade was in the second line, with its battalions formed in closed columns (*en masse*). Some time later, Barclay ordered him to move his division at a place between the Raevskii Battery and Semenovskoye to drive off the French troops that had appeared there. The Duke wrote that he changed the formation of his division. The first brigade was in first line; the Volynskii Regiment was formed in line and the battalions of the Tobolskii Regiment were formed in closed columns and placed on both flanks of the Volynskii Regiment, since enemy cavalry was present (this formation is the same as the *ordre mixte* used by the French). The second brigade followed in columns.^{xcv} After the war, the Duke wrote that fire from an infantry line was powerful, but could be effectively used only in defense and usually only in cases when the terrain facilitated its use. He explained that, at the same time, any movement in line was inconvenient, while battalion columns were maneuverable and wide intervals between them allowed artillery to move freely between them. As a result, in 1812-14, infantry usually fought in battalion columns, with skirmishers before them.^{xcvi}

V.S.Norov, an officer in the Life-Guard Jager Regiment, wrote, in his memoirs, that at Lützen (20 April/2 May 1813) they were, for the first time, formed in line, "so that enemy artillery firing from three directions could do less harm." Norov probably mistook Bautzen (8-9/20-21 May 1813) for Lützen, because he mentions that they were placed near the village of Litten, but actually, this village was situated at the battlefield of Bautzen.^{xcvii} General N.M.Sipyagin, describing rearguard actions during the retreat from Lützen to Bautzen, wrote that it is better to attack in columns, but if it is necessary to retreat across an open field, it is better to form infantry in line so as to lessen casualties, but that reserves should be formed in columns. He used this formation in open terrain near Bautzen. When the French came close, the battalions of the first line formed columns and retreated through the intervals in the second line, which marched forward a

little, thus stopping the French. He also says that, if an enemy attacked in this situation, it is necessary to counterattack him.^{xcviii}

Sometimes it was necessary to form infantry in line because the terrain prevented the formation of columns. General I.F.Paskevich, commander of the 26th Infantry Division (7th Infantry Corps), describes one such case in his memoirs. Bagration decided to attack the French near Mogilev; he thought there were only 6,000 French and sent the 7th Infantry Corps forward. At Saltanovka (10/22 July 1812), General Raevskii, commander of the 7th Infantry Corps, ordered Paskevich to attack the French right flank with his division. Paskevich led his division through a thick wood. His infantry marched in a column of three files. His skirmishers drove the French skirmishers from the wood and stopped at the edge of the wood. When Paskevich arrived at the edge of the wood, he saw French skirmishers on a small rise, not more than 50 *sazhen* (106.7 m) from him, and two infantry columns behind it. A river and a small village were behind the rise. He writes that his infantry were not able to form columns, because the wood was too dense. He first led two battalions to the right by sections (one battalion of the Orlovskii [Orel] and one of the Nizhegorodskii [Nizhnii Novgorod] Infantry Regiments) and formed them in line. Once these battalions were formed, he ordered them to attack with the bayonet, to drive the French across the river, to take the village and to hold there for his new orders. The battalions overthrew the French in an instant and pursued them. This allowed Paskevich to get his artillery and the rest of his infantry out of the woods. He placed twelve cannon on the rise and sent the Poltavskii Infantry Regiment to follow the first two battalions. Now he was able to see the enemy forces clearly. The French infantry was formed in two lines of columns and their cavalry was behind them. Paskevich reinforced his artillery with six guns and placed the Ladozhskii (Ladoga) Infantry Regiment on the left flank. He then rode to the right flank and saw that his artillery was about to abandon its position because of heavy fire from French skirmishers and that the Poltavskii Regiment was retreating. He ordered all of them to stop, to hold the position and then rode further to the right, where he suddenly saw two French battalions marching from the wood to the rear of his position. Paskevich says the French were only 30 paces from him. All this happened because the two battalions, which were ordered to take and hold the village, did not stop there, but made an attempt to continue their advance. Just as they started to march out of the village, four French battalions, which had been concealed in a wheatfield, suddenly appeared, fired a volley and attacked them with the bayonet. In the ensuing fight, the Russian battalions lost many men, and were overthrown and pursued by two French battalions, which Paskevich met. He managed to drive the French battalions back.

Paskevich then placed the Poltavskii Regiment at the edge of the wood in line, reinforced his skirmishers and ordered all of his 18 cannon to fire at the main French forces. He writes that their fire was so effective that the French columns incessantly moved from place to place and gradually withdrew out of long cannister range. Paskevich asked for reinforcements. The battle then stalled, as sides fired at each other for more than one-and-a-half hours. Meanwhile, General Raevskii made an attempt to attack the village of Saltanovka. The thick woods around the village were such that one could only attack it along the road, exposed to French artillery fire. The village was prepared for defense; it was protected by a river and the only bridge was barricaded. The 12th Infantry Division attacked with great bravery. Raevskii personally led the attack, but without

success. He lost many men and sent only one battalion of the 41st Jager Regiment to Paskevich. When the battalion arrived, Paskevich made an attempt to outflank the enemy, but was soon ordered to retreat and informed that the 12th Division was already retreating. He was afraid that it would be very difficult to withdraw his isolated division through the wood in the presence of the enemy and so he ordered his troops to hold out at the position.

Paskevich then rode to the 12th Division, hoping to ask Bagration to hold the position until night. He found the division in full retreat, but managed to persuade General I.V. Vasilchikov to stop the troops and hold out until he would join them with his division. Paskevich says that, otherwise to save his men, he would have been forced to abandon all of his artillery. Vasilchikov agreed; stopped the troops and Paskevich returned to his division. He placed the Ladozhskii (Ladoga) and Poltavskii Infantry Regiments at the edge of the wood, ordered the rest of his infantry to hold the position and ordered artillery to retreat by groups of two pieces, starting at once from the flank. He then placed two pieces at the edge of the wood and all other pieces retreated through the woods at a trot. The infantry at the position was ordered to retreat once the last two pieces had left the position. Paskevich writes that all this was carried out as he written. The French, seeing the Russian retreat, rushed forward, but were stopped by cannister fired by two cannons and the musketry of the two regiments. This allowed Paskevich to retreat through the woods safely and to save all of his artillery.^{xcix}

As can be seen from this account, infantry formed in line could also attack short distances with the bayonet. Sometimes, a combination of line and column was used in the same regiment to permit use of the firepower of line and the maneuverability of column. This was a recognition of the system used by the French for many years, known as the "ordre mixte." M.M. Petrov, a major and commander of the first battalion of the 1st Jager Regiment in 1812, wrote that, at Borodino, his regiment was sent to relieve the Life-Guard Jager Regiment, which was driven out from the village of Borodino and retreated over two bridges on the Kolotcha River. The Guard Jagers were so hard-pressed by the French that they were not able to destroy the bridges and the French started to cross the river. The 1st Jager Regiment was ordered to attack them and to drive them back behind the river. Colonel M.I. Karpenko, commander of the 1st Jager Regiment, went forward, together with both his battalion commanders, Petrov and Sibirtsev, to observe the French and the point of attack from behind a narrow and long mound not far from the bridges. Petrov wrote:

When the Life-Guard Jager Regiment, having pulled together upon signal, marched from the Kolotcha River to the rear of the 5th Corps. Colonel Karpenko then deployed my 1st battalion from column into line and brought up Major Sibirtsev's 3rd battalion [formed] in column of attack at a distance of 15 paces from the rear rank of my battalion. The mound, or more accurately, the narrow oblong ridge, projecting to the left from the road towards the confluence of the Stonets Brook [with the Kolotcha River], lays with its top at the distance of a pistol shot from the right end of the upper bridge and at [a distance of a] musket [shot] from the lower pontoon one, in front of which the enemy troops stood, having just crossed [the river]. Colonel Karpenko with my battalion, ... having run up at the mound, fired an

aimed volley at the enemy with the whole line and while smoke from the volley was still curling in the face of the enemy and their men, stricken and bewildered by the volley of my battalion, were in confusion, our jagers ... charged with the bayonet. Since the Guard Jagers, wanting to destroy the bridges after them [i.e. after they had crossed the river], had removed about ten beams at the middle of the upper bridge standing on piles, we pressed the French to the gap and into the slimy river. At the same time, our 3rd battalion ... being half-wheeled to the right, rushed from behind of mine to the lower pontoon bridge, which was 40 paces from the upper one and, also after a volley by the front division, charged with the triple-edged [i.e., with the bayonet], so we exterminated all enemy troops [which had crossed the river] together with their general¹ and officers and having marched to the left bank of the Kolotcha River into Borodino, drove the enemy from it by our united regiment.^c

Then they were ordered to abandon the village, to go back across the river and to destroy the bridges, and that was done under heavy enemy artillery and musket fire. Petrov mentions that, after this action, "the counting-off of the regiment was corrected." He probably means that all platoons within each battalion were equaled in number of men right in the course of the battle.

As can be seen from some examples given above and in many other orders, reports and memoirs, when infantry battalions were formed in columns at a battlefield in 1812-14, those were usually columns formed on the center or "attack columns".^{ci} Closed columns of platoons were used to move infantry out of effective range of enemy artillery.^{cii} I.T.Radozhitskii, an officer in the 3rd Light Artillery Company in 1812-14, mentions "divisional columns" in his memoirs. He used the term describing infantry marching in columns along both sides of a road during the long retreat in the beginning of the 1812 campaign, or infantry hurrying to the battlefield during the combat at Ostrovno ("infantry in closed divisional columns marched forward quite quickly"), or infantry in pre-battle formations, marching seven *versts* (almost 7.5 km) towards Leipzig (4/16 October 1813).^{ciii} He probably means columns of platoons, since, being an artilleryman, he may be wrong in the use of the infantry drill terminology (he does not mention any other kinds of column at all). It is possible that he means whole divisions (several regiments) marching in large columns, but it is highly improbable. It is probable that, when there was no time to form attack columns, infantry quickly formed battalion columns of divisions from marching columns or columns of platoons. So, Radozhitskii may be right using the term "divisional columns" in his account of the combat at Ostrovno: the infantry hurried to the battlefield and there probably was no time to form attack columns. In all other cases; i.e., when there was enough time to form attack columns, it was done, as can be seen in an episode from the memoirs of V.S.Norov. On 5 /17 November 1812, the advance guard of one of the Russian main army columns (the Life-Guard Finland and Jager Regiments, a cuirassier regiment and an artillery company, under the command of Major-General G.V.Rosen) marched along a road, which was so narrow, that the infantry were able to march in columns of six files only. Nevertheless,

¹ General Plauzonne.

they formed columns of attack in the sparse forest before their attack at the village of Dobroye and then marched right to the edge of the forest, while the attached cuirassier regiment and artillery company went around the forest.

At the second stage of the 1812 campaign, when infantry battalions were weak, infantry was usually formed in regimental columns on the battlefield. In the disposition to attack the enemy at Krasnoi (5/17 November 1812) it is written: "Under cover of the advance-guard, the 6th Corps ... forms columns of platoons at full intervals, [then] forms line and from the line immediately forms regimental attack columns and marches forward, having the 8th platoons of the 1st battalions and the 1st platoons of the 2nd battalions at the heads of the columns."^{cv} As can be seen, such a column consisted of two battalion columns of platoons placed side by side, the right one formed "on the left" (i.e., the 8th platoon at the head), the left one formed "on the right" (i.e., the 1st platoon at the head). It is not clear whether these columns were only an intermediate formation for marching onto a battlefield and maneuvering, like column of platoons, or if Russian infantry regiments fought in such deep columns; i.e., whether both battalions in each regiment were reformed into columns of divisions before coming into battle, or not.

Attack columns were often used as their name implies; i.e., to attack the enemy. As can be seen in reports and memoirs on the battles of Borodino, Katzbach (14/26 August 1813), Kulm (17-18/29-30 August 1813) and Paris (17/29 March 1814), bayonet attacks were carried out in closed columns.^{cv} The term "attack column" meant a column with the distances between its successive parts equal to a half-frontage of a platoon, while the term "closed column" meant a column with the distances between its successive parts equal to three paces only, so a column might formally be either an "attack" or a "closed" column, but not both at the same time. However, it is highly improbable that battalions changed their formations from attack column to column of divisions or column of platoons before an attack. They probably simply reduced the distances to three paces, formally becoming "closed columns formed on the center", but still were called "attack columns". The Russians had adopted the French system, but the use of the terms was probably still vague in 1812-14.

In the Borodino battle plan signed by Kutuzov, it was prescribed that "In case of an advance during the action, one is to carry out this movement in attack columns, in that case one must not get himself busy with firing, but to act quickly with cold steel."^{cv1} Similar recommendations may be found in dispositions made to attack the enemy at Tarutino and Krasnoi.^{cvii} Bagration also prescribed, in his orders, to avoid firing too much, but to attack quickly with the bayonet.^{cviii} Norov describes one such attack, after they were formed in attack columns in the sparse forest near the village of Dobroye, they marched to attack the enemy:

Meanwhile, as our columns were marching at a quick pace with drumbeat, under cover of our skirmishers and artillery, to the village of Dobroye, the enemy, having formed closed columns and pushed out his *voltigeurs*, moved towards us. Major-General Baron Rosen ordered our cuirassiers to charge the enemy. They rushed to the attack; but the French infantry, having formed a thick square in an instant, meet them with heavy battle fire. The cuirassiers were overthrown and retreated through the intervals between our battalions. Baron Rosen, having galloped up to our regiment, ordered us to

go forward; we rushed with the bayonet, the French continued the battle fire, a bullet knocked the cap off General Rosen's head, Captain Tolstoi was wounded in the shoulder, Colonel Count Grabovskii was killed among the enemy ranks together with his horse, but the French did not withstand this charge, the 108th [French] Line Regiment was almost wholly destroyed. The other enemy columns, as it usually happens, having let us come up to several paces [to them], fired a volley and turned back to the village.^{cix}

As it has been written, the expression, "bayonet attack" did not mean that formed units really fought with the bayonets. Usually, one side retreated or fled, as can be seen in the passage quoted above. However, units defeated in bayonet attacks could take heavy casualties or even be destroyed, as can be seen in the passages from the memoirs of Norov and Petrov quoted above. Duke Eugen von Württemberg explained that the bayonet was really used only when defeated units, already fleeing and being delayed in their flight by local obstacles, were caught up by pursuing winners.^{cx} It is obvious that, in the episode from the memoirs of Petrov the river and broken bridge were the causes of the destruction of the French troops, which crossed the river. Another example of what really happened in bayonet attack can be found in the memoirs of L.A.Simanskii, an officer in the 2nd battalion of the Life-Guard Izmailovskii Regiment in 1813. At Kulm (17/29 August 1813) French infantry advanced, pushing back Russian skirmishers and, as French bullets hit the battalion, then:

Our battalion ... marched with the bayonet, a loud "ura" preceded this, [M.E.] Khrapovitskii [commander of the Izmailovskii Regiment] rode ahead; the enemy turned to flight. Running in a greatcoat, I was fatigued; [we] caught up with a large number of the enemy near a brook among brush, where they, having crowded, fell on one another. Here I saw, for the first time how they were punished by bayonets. I slashed at their faces with my sword, one seized me by my hand and threw me down; a hail of bullets poured at me; I threw off my greatcoat, we still went forward, ... at last [we] saw that the enemy appeared at the left flank; [our] soldiers, having turned to the left, fired and went back.^{cx}

In attacks, the Russian troops usually shouted "ura", according to the old custom. Some experienced generals considered this unnecessary and even dangerous and tried to restrict the shouting. Count Langeron writes: "some erroneously believe, that the shout 'ura' stimulates audacity, but is this necessary, when the soldiers are brave even without that? Russian bravery may even serve as an example to other nations ... If this bravery had not been known in Europe, one might have thought that it is stimulated by the wild shouts. [Fieldmarshal A.A.] Prozorovskii [commander of the Army of the Danube in 1809] not unreasonably says that these victory shouts serve rather to defeat. Troops always lose their mind when they shout 'ura' and thus prevent themselves from hearing their officers and those of their commanders."^{cxii} In his order issued before the battle of Borodino, Barclay de Tolly says: "In attacks ... troops are to be forbidden to shout 'ura', unless [they would be] ten paces from the enemy; then this is allowed."^{cxiii} In 1813 Barclay wrote in his *General Instructions on the Order of the Troops on the March*, in

Camps and in Very Battles (the end of July/beginning of August 1813): "The shout 'ura' is to be used only in that very moment when [infantry] has approached the enemy at such a distance that it only remains to stab with the bayonets; an untimely shout of 'ura' is a signal to disorder."^{cxiv}

The Russian infantry was still considered superior in bayonet attacks.^{cxv} The bayonet attack was still an important element in Russian infantry tactics and, indeed, often used. Duke Eugen of Württemberg wrote that the Russian bayonet attack was very powerful, especially if it was timely and well-directed, but he adds that opportunities necessary for a successful bayonet attack were seldom presented and untimely attacks resulted in heavy and unnecessary casualties.^{cxvi} The bayonet attack was considered especially useful and timely when enemy troops were thrown in disorder by artillery fire not far from Russian infantry and so it was recommended bayonet counterattacks be used in the defense.^{cxvii} A complete list of situations when it was considered useful to attack an enemy with the bayonet can be found in a military manual published after the Napoleonic Wars:

- 1) When friendly fire or some other cause throws the enemy troops into disorder;
- 2) When it was known that the morale of the enemy troops is shaken by some sudden event; for example, the death of their commander, unfavorable news, appearance of friendly troops at a flank or in the rear of the enemy;
- 3) When it was known that enemy reinforcements approached the battlefield and there would be a hope of defeating the enemy before their arrival;
- 4) When the enemy carried out a maneuver, which required much time and it is possible to reach him before he has finished it, or when there was a possibility of attacking the enemy's flanks;
- 5) When it was known that, due to some error, the number of enemy troops at some part of the enemy position was insufficient [to adequately defend the position];
- 6) When advancing enemy troops were overthrown with great loss;
- 7) When the enemy tried to disengage after unsuccessful attacks.^{cxviii}

However, it was sometimes necessary to counterattack, in spite of the fact that the situation was not favorable. At Valutina Gora (7/19 August 1812), the Russian rearguard, under the command of Major-General P.A. Tutchkov, a younger brother of Lieutenant-General N.A. Tutchkov, fought stubbornly against superior numbers to allow the Russian armies to retreat safely. At the end of the day, the Russian rearguard was pushed back and then Tutchkov personally led a grenadier regiment in a counterattack. It was growing dusk. His horse was hit by a bullet; he dismounted and continued to advance on foot. Having seen them, the enemy stopped. When the Russians were only several paces from the French, they shouted "ura!" and charged with the bayonet, but were overthrown. Tutchkov was wounded in the right side by a bayonet thrust and fell to the ground. A French officer cut Tutchkov in the head trying to kill him, but the moon suddenly sifted through clouds, the officer recognized the Russian general and Tutchkov was taken prisoner.^{cxix} Nevertheless, this attack delayed the enemy advance; the day was over and the Russian armies retreated safely.

As has been written, infantry was usually in full disorder even after a successful bayonet attack and it was difficult to stop and reform men pursuing the enemy. To stop a

pursuit and to reform was the first duty of the officers after a bayonet attack, as it is written in the *Instruction to Infantry Officers on a Day of Battle*:

When the enemy line is forced back by our bayonets, then it is most necessary that officers should be busy with putting the formation into order immediately and they by no means allow the men to pursue any part of the enemy, which fled from our bayonets, excepting the men from the third rank sent purposely, so that the enemy cavalry would not use our disorder and in its attack it would find a line in good order facing him, which is ready to destroy his attempt by an accurate volley of muskets; some part of the third rank must be sent with brave officers, since neither the line nor the formation would be disordered by this. These must pursue the enemy quickly, kill and take them all prisoner; in case of appearance of enemy cavalry [they are] to do what is prescribed to skirmishers. When it is necessary to join the regiment again, they are to run around the flanks and then to take their places.^{cxx}

General Paskevich writes that, at Saltanovka and Smolensk, he had some difficulties in stopping his men pursuing the enemy after successful bayonet attacks and returning them back to the ranks.^{cxxi} In general, in 1812-14, there were not many such cases of disorderly pursuit, so the Russian infantry were either not so impetuous or were better controlled.

Against enemy cavalry, infantry formed squares. In reports of I.F.Udom, commander of the Leib-Gvardii Litóvskii (Life-Guard Lithuanian) Regiment, and of A.P.Kutuzov, commander of the Life-Guard Izmailovskii Regiment, on the battle of Borodino, it is written that the battalions of the regiments were formed in attack columns and when they were attacked by enemy cavalry, they formed "squares against cavalry".^{cxxii} Mikhailovskii-Danilevskii mentions that the 12th Infantry Division formed "squares against cavalry" at Leipzig (4/16 October 1813).^{cxxiii} The "square against cavalry" is not merely an expression, but, according to the infantry regulations published in 1816, it was a specific type of battalion square with its sides of double depth. The usual square was also probably used.

Infantry formed in square was usually able to withstand attacks of the best enemy cavalry, because it was well protected from all sides. Barclay de Tolly writes that, at Borodino, when enemy cavalry broke through the intervals between the squares of the 7th and 11th Infantry Divisions, the infantry fired at the enemy from the rear sides of the squares.^{cxxiv} Infantry usually allowed enemy cavalry to ride up to effective musket range and met them with heavy fire. In the *Instruction to Infantry Officers*, it was recommended that fire be opened on enemy cavalry at a range of 150 paces (106.5 m; the same range was recommended in Vorontsov's original instruction).^{cxxv} In practice, the range was usually shorter. Barclay de Tolly noted that at Borodino, the Pernovskii Infantry and 33th Jager Regiments let enemy cavalry come up to 60-80 paces (42.6-56.8 m) and then threw them in disorder by a well-directed volley.^{cxxvi} Prussian Colonel Müffling mentions that once, in 1814, three Russian newly-formed battalions allowed French cuirassiers to ride up to 60 paces and then Russian officers ordered to fire (it is interesting that, after the Russians fired, the cuirassiers turned back, in spite of this, no man or horse had

fallen).^{cxxvii} After the Napoleonic Wars, the range of 60-80 paces was also recommended as the best to start fire by files against enemy cavalry.^{cxxviii} Well-directed and timely fire was usually enough to stop any cavalry attack, but infantry sometimes counterattacked enemy cavalry with bayonets. It is written that the Perno'skii Infantry Regiment at Borodino repulsed an enemy cavalry attack and then itself attacked and routed the enemy cavalry with bayonets, some men in the first rank even threw their muskets as javelins at the backs of the enemy.^{cxxix} General Vorontsov wrote in his report on the battle of Craonne, that the Shirvanskii Infantry Regiment was surrounded by enemy cavalry, but managed to throw them in confusion by battle fire and then attacked them with bayonets.^{cxxx}

Infantry sometimes repulsed cavalry attacks without firing at all. V.I. Timofeyev, the hero of the battle of Eylau, commander of the 2nd battalion of the Leib-Gvardii Litovskii (Life-Guard Lithuanian) Regiment in 1812, writes that, at Borodino, when they were attacked by enemy cuirassiers, he strictly prohibited his men to fire and ordered them to wave their muskets with the bayonets. He explains that he knew from his experience that horses would not go onto glittering metal. He also ordered to stab the horses in their heads with the bayonets. The enemy cuirassiers were unable to disorder Timofeyev's square; they rode around it some time and then began to form a column very close to the front of his battalion (he says at thirty paces). Then Timofeyev ordered his men to charge with the bayonet; the foremost French were killed; all others turned back and were driven away by fire. This brave attack had some unpleasant consequences: Timofeyev's battalion moved 200 paces forward from its initial position and got under fire of the 3rd battalion of the Izmailovskii Regiment, standing to the right^{cxxxi} (the regiments stood side-by-side, the Izmailovskii at the right, the Litovskii at the left, in each regiment the second and third battalions were in the first line, the first battalion in the second line). General P.P. Konovnitsyn wrote that the Izmailovskii Regiment also attacked the enemy cuirassiers with the bayonet. In his report he wrote that these two regiments repulsed three enemy cavalry attacks.^{cxxxii} Both Konovnitsyn and Dokhturov praised these regiments for their bravery.^{cxxxiii} Unfortunately, the bayonet attacks are not clearly mentioned in the reports of the commanders of the regiments; they both wrote only that the enemy cavalry attacks were repulsed by battle fire. Colonel I.F. Udom, commander of the Litovskii Regiment, wrote that, after firing, the regiment shouted "ura" and drove the enemy cavalry away with heavy losses; that probably means a bayonet attack.^{cxxxiv} L.A. Simanskii, a *porutchik* (lieutenant) in the 3rd battalion of the Life-Guard Izmailovskii Regiment in 1812, also does not mention the bayonet attacks; he says that some soldiers leapt out of the ranks and fired at the backs of the retreating enemy cavalry.^{cxxxv}

Even an isolated infantry battalion formed in square was able to repulse numerically superior enemy cavalry and even to attack it and escape, as was shown by the first battalion of the Ryazanskii Infantry Regiment at Rheims, 28 February/12 March 1814. Early in the morning, an allied corps, consisting of Russians and Prussians under the command of General St. Priest, stormed Rheims and occupied the city. The allied troops were placed at quarters in the city and around it. 1/13 March, at 11:30 a.m., a Prussian galloped up and informed St. Priest that a Prussian brigade (6,000 men) staying at the road to Soissons was suddenly attacked in the morning by French cavalry and was defeated (the remnants retreated to the city). Soon, French cavalry appeared near the city.

St. Priest thought it was only a diversion of enemy partisans. He sent some troops to drive the enemy away from the city and several battalions and squadrons of the allies, with artillery, marched from the city and pushed the enemy away. The first battalion of the Ryazanskii Infantry Regiment, under the command of its regimental commander, Colonel I.N. Skobelev, took a position 2 *verst*s from the city, near the river. There were no actions during several hours, but then large enemy forces appeared. St. Priest had 14,000 men; he was not informed that Napoleon had captured Soissons. He thought that he was attacked by the Marshal Marmont's VI Corps, perhaps 12,000 to 14,000 men, and so he decided to defend the city. Unfortunately, he was attacked by the main French Army, led by Napoleon himself. When a large-scale attack started, the allied troops were overthrown into the city in a quarter of an hour. The first battalion of the Ryazanskii Infantry Regiment was cut off, but Colonel Skobelev ordered it to form square, one side to the river, and the isolated battalion repulsed three cavalry attacks. St. Priest himself, mortally wounded by a cannonball, was brought up into the square and the battalion repulsed two more attacks. In the growing dusk, the French left the battalion in peace. The battalion marched to the city, where it suddenly found itself in the rear of the French troops advancing to the city, fired a volley, broke through with bayonets and saved themselves and St. Priest (who died two weeks later).^{CXXXVI} N.B. Golitsyn writes that Skobelev's action improved the critical situation and that, later, he spoke with a French cavalry officer from General Piquet's division, who fought at Rheims (General Bordesoult's Corps): he written to Golitsyn that it was "a real ambush", because they were suddenly showered with bullets from the rear and put to flight.^{CXXXVII}

Sometimes battalions were too weak, as in the Duke Eugen von Württemberg's 2nd Corps at Leipzig (4/16 October 1813), where his battalions consisted of around a hundred men each and formed squares so small that there was no place for senior officers inside them.^{CXXXVIII} That was probably the reason why regimental squares were sometimes used, as was done at Craonne (22 February/4 March 1814). In this battle, after a long and stout resistance, General M.S. Vorontsov was ordered to retreat. He writes: "Having formed regimental squares, I ordered to retreat at a slow pace and line by line; artillery, piece by piece ... the troops retreated as if at drill exercises. Several times, seeing the insolence and desperate efforts of the enemy, I ordered my infantry to stop. Then our orderliness and fire stopped the French and we retreated as slowly as possible."^{CXXXIX}

Sometimes even larger squares were used. The 27th Infantry Division consisted of newly-formed regiments under the command of Major-General D.P. Neverovskii. At Smolensk, three infantry regiments were separated from the division, but Neverovskii got two veteran infantry regiments in exchange and so he had two jager and three infantry regiments (10 battalions in total), plus the Kharkovskii Dragoon Regiment (four squadrons), three cossack regiments and a heavy artillery company. General Neverovskii himself, N.I. Andreyev, battalion adjutant in the third battalion of the 50th Jager Regiment in 1812 and D.V. Dushenkevich, a *podporutchik* (sublieutenant) in the Simbirskii Infantry Regiment, describe the actions of the division at Krasnoi (2/14 August 1812). The whole 49th Jager Regiment was placed before the small town of Krasnoi in skirmish order; the third battalion of the 50th occupied the town itself and was distributed by companies on the streets. Andreyev was on the main street with the grenadier company of the third battalion and two artillery pieces (several other pieces were also on the streets). All other regiments of the division were placed behind the town in columns. The first battalion of

the 50th Jager Regiment was placed in reserve several *versts* to the rear on the road to Smolensk. The French made an attempt to enter the town, but were repulsed and started a turning movement. The jagers abandoned the town, withdrew to the infantry regiments and the whole division started to retreat. In the very beginning of the retreat, all support from the other arms was lost: the Kharkovskii Dragoon Regiment and two cossack regiments were routed by overwhelming numbers of French cavalry. Seven artillery pieces were lost and five escaped with the dragoons. Nevertheless, the infantry alone managed to escape. They formed a single large square (Andreyev wrote that the square was rather like a dense crowd) and retreated across the fields along the road with two thick rows of birch along it. The Russians retreated slowly, 12 *versts* (12.8 km) in 5 hours, and repulsed dozens of cavalry attacks in the process. Fortunately for them, the French had only one artillery company (they also tried to use the captured Russian guns) and no infantry. Finally, the Russians reached the reserve: two pieces of cossack artillery and the first battalion of the 50th Jager Regiment, which was placed at the top of a hill and formed in a single rank to give the enemy an impression of a larger body of troops. Having seen the reserve, the French stopped their attacks and the Russians retreated safely. They lost twenty officers and 1,200 men, in total. Neverovskii probably resorted to the large square because he had mainly inexperienced men and he lost artillery and cavalry support (the French used multi-battalion squares in 1813, when their infantry was mainly inexperienced and their cavalry weak).^{cxl}

Solid or closed battalion square; i.e., closed column with a few files on both flanks turned outwards and three rear ranks turned backwards, was also probably used at times. It could be easily and quickly formed from closed column. Bagration wrote, in his order to the 2nd Western Army (25 June/7 July 1812): "When enemy cavalry attack our infantry, one is to form a closed column to all sides, or battalion square."^{cxli} In a report of General P.M.Kaptsevich, it is mentioned that closed columns were used against cavalry during the retreat at Vauchamps (1/13 February 1814).^{cxlii}

If both flanks of infantry were well-protected, the infantry was able to repulse enemy cavalry attacks standing in line. After the Napoleonic Wars it was recommended that, in this situation, a volley be fired by the second rank at a range of 60 paces and it is written that cavalry would be repulsed "as it has been proved by numerous examples."^{cxliii}

To save infantry from enemy artillery fire, various methods were used. In the *Instruction to Infantry Officers on a Day of Battle*, one finds: "If the commander sees that he can move his unit by marching a few paces forward out of a position where cannonballs are hitting, then this may be done, if he is not in line with other regiments. [He is to move] without haste and, in any case, he is not to take even one step backwards for it."^{cxliv} At Borodino, Russian infantry used depressions and ravines as a shelter from artillery fire. N.E.Mitarevskii, a junior officer in the 12th Light Artillery Company in 1812 (the 7th Artillery Brigade attached to the 7th Infantry Division of the 6th Infantry Corps) wrote that they could not see friendly infantry, but when it was necessary, they appeared as if from out of the ground.^{cxlv} A.I.Antonovskii, a junior officer in the 26th Jager Regiment in 1812, describes his first combat mission: at Yakubovo (18/30 July 1812), he, with a platoon of jagers, was sent to support two guns and placed his men behind them. Some time after, he was stunned by a cannonball, but recovered soon and saw his platoon divided into two parts, which were placed on each flank of the guns. He asked why and was informed by an experienced NCO that staying behind the guns they

would present a good target to the enemy artillery. Antonovskii agreed and they remained in this position for some time. Then Colonel Suchasanett, commander of the horse artillery company, whose guns were supported by Antonovskii's jagers, rode up and advised him to place his platoon in a nearby hollow. The enemy attempted to attack the guns with a small infantry force, but Antonovskii put them to flight with a sudden and timely counterattack. Antonovskii also mentions in his memoirs that on the next day at Klyastitsy (19/31 July 1812), his regiment supported an artillery battery and was initially placed behind it in column, but when French artillery fire became too heavy, his regimental commander formed the regiment in line "as if on the regimental parade ground", moving it slightly to the right of the most dangerous position in the process. At the first battle of Polotsk, the 26th Jager Regiment again supported an artillery battery and they were ordered to laid down on the ground to save them from enemy artillery fire.^{cxlvi} At the second battle of Polotsk, Colonel N.A.Okunev, with a battalion, was under the fire of three enemy artillery pieces for several hours, but he frequently moved the battalion slightly to the left or to the right and lost only two men killed and one NCO wounded.^{cxlvii} Nevertheless, as it is written in a military manual published after the Napoleonic Wars, there were many more examples of infantry standing under fire without taking any measures to avoid unnecessary casualties.^{cxlviii} In this case, the *Instruction to Infantry Officers on a Day of Battle* says:

If a regiment or a battalion is ordered to stand in place in formation under enemy cannon fire, a company commander is obliged to be in front of his company, to observe and to strictly forbid his men to edge away from cannonballs; if a soldier cannot be persuaded not to do it with shame, one may try to frighten him with punishment; for there is nothing more disgraceful than if a unit or a regiment bows to each cannonball, even if it flies to the side. The enemy himself observes this and is encouraged by it ... Sometimes a regiment is under fire and, although [itself] is not acting, it is of great use for the whole army by its bold and well-arranged posture. An officer, next in rank to the company commander, must stand behind the company to observe that the wounded, who cannot walk themselves, be led to the designated place by men assigned to this duty and that the unhurt would by no means quit [the ranks]; to immediately fill empty spaces in the first and second ranks [with men] from the third rank and in case of great losses, [ensure] that the files close up and also observe that men in the rear ranks would stand as cheerfully and merrily as the men in the front ranks and as is proper to a good soldier.^{cxlix}

An anonymous author of one of the articles published in the *Military Journal* noted that infantrymen were accustomed to artillery pieces and sometimes were afraid to fight without them.^{cl} At Saltanovka, the commander of the Poltavskii Infantry Regiment was wounded when two French battalions appeared suddenly on the flank and the regiment retreated. General Paskevich joined the regiment personally and ordered: "Forward, lads, ... *ura*, with the bayonet!", but they hesitated and he heard that someone say "if artillery were with us." He ordered them to hold on at the place, then rode back, placed four pieces behind them, returned to the regiment and ordered it to withdraw to the

guns. Having seen this, the French rushed forward, shouting “*en avant*”. The regiment then opened a gap for the cannon and they poured cannister onto the French battalions, which were confused and stopped. Paskevich again ordered “forward”. The regiment overthrew and pursue¹ the French so fast that he stopped it with some difficulty.^{cli}

In battle, soldiers often used various pretexts to leave the ranks and to go to the rear, the most widespread excuses were helping the wounded and lack of ammunition. In the *Instruction to Infantry Officers on a Day of Battle*, it is prescribed that “An officer next in rank to the company commander must be behind the company to observe that the wounded, who cannot walk themselves, be led to the designated place by men assigned to this duty and that the unhurt would by no means quit [the ranks].”^{clii} In an order issued after Borodino (30 August/11 September 1812), Kutuzov written that, at Borodino, he noticed that many men left the ranks under such pretexts and so he strictly forbade anyone to leave the ranks for the purpose of helping the wounded or lack of ammunition.^{cliii} Supplying infantry with ammunition was probably the duty of battalion adjutants, since Andreyev, a battalion adjutant in the 3rd battalion of the 50th Jager Regiment in 1812, mentions that he did this at Borodino.^{cliv}

The custom of taking off the backpacks before going into battle was long abandoned, but sometimes men were ordered to do it. At Saltanovka, General Paskevich ordered two battalions of his division, which were to be sent to the advance guard, to leave their backpacks in order to permit them to march more quickly. Their backpacks were not left on the ground, but were taken and brought up by two other battalions of the same division.^{clv}

Between 1812 and 1814, it was still typical of the Russian Army to form in two lines at a distance of 300 paces or 100 *sazhen* (213.4 m), though at Borodino, the distance was 200 paces.^{clvi} Reserves were also formed in two lines of open battalion columns (columns with full distances), as was prescribed in Kutuzov’s order issued before the battle of Borodino.^{clvii} It was considered inconvenient to place the battalions of the same regiment one behind another, because, if it became necessary to take some troops and send them to another place, the dispatch of a regiment would create a gap in the line of battle. However, if one acted to avoid forming a gap by taking battalions out of one line, one would get battalions from different regiments.^{clviii} In 1812-14 one brigade of an infantry division was usually in the first line and another in the second one.^{clix} Divisions were usually placed side-by-side,^{clx} but sometimes, one division was formed in a single line and another was placed behind it as a second line, as it was at Ostrovno (the 11th Division in the first line; the 23rd Division in the second^{clxi}) and at the Bagration *flèches* at Borodino (General Vorontsov’s Converged Grenadier Division in the first line and General Neverovskii’s 27th Infantry Division in the second line^{clxii}).

As it is stated in a military manual published after the Napoleonic Wars, the second line was to support the first one or, if the first line was thrown into disorder or overthrown, the second one was to immediately relieve the first one; i.e., to take its place and so to give it a chance to rally.^{clxiii} Battalions in the lines were sometimes placed in checkerboard order,^{clxiv} or at least the battalions of the second line were shifted to the right or left a bit. This allowed an easy passage of lines (the movement of the first line behind the second line) and, if the infantry were attacked by enemy cavalry and forced to form squares, it created crossfire zones.^{clxv} The checkerboard order was recommended in tactical manuals published after the Napoleonic Wars.^{clxvi} However, Duke Eugen von

Württemberg wrote that the checkerboard order was infrequently used because it was difficult to maintain proper intervals between battalions during the advance in this formation. At the same time, when executing a passage of lines and the second line remained in its place while the first line retreated through it, it was not important whether the battalions of the first line retreated perpendicularly to the second line or slightly obliquely.^{clxvii}

Though the infantry divisions consisted of brigades of two regiments each and the *chef* of one of the regiments was usually brigade commander, there is little information as to how this command structure worked. At the same time, there is some evidence that divisional commanders gave orders directly to the commanders of their regiments; for example, General Paskevich at Saltanovka and General P.M.Kaptsevich, commander of the 7th Infantry Division (the 6th Infantry Corps) at Borodino.^{clxviii}

Chapter 4

Skirmish Tactics.

In 1810 an article on the tactics of jagers was published in the *Military Journal*. The author was an experienced officer and commander of a jager regiment. He wrote that light troops are useless without discipline; that each jager had to be well trained in aimed fire; he had to use his ammunition sparingly, firing without haste; his principal targets were enemy officers and artillerymen and that fire without effect encourages an enemy. Being in the skirmish line, the jager was not to go too far forward; he had to support his comrade in the pair and was not to fire until the comrade had reloaded his musket. Jagers were to attack quickly, but to retreat slowly.^{clxix} The author of the article wrote that, according to Kutuzov's instructions, in skirmish order, a half of the whole number of men was kept in reserve in close order (he probably meant the 1786 instructions to the Bugskii Jager Corps), but if it became necessary to deploy the whole unit in skirmish order, he advised keeping two platoons as a reserve in close order, one platoon behind each flank.^{clxx} If the enemy sent his flankers (mounted skirmishers) to draw fire, only selected marksmen were to be allowed to fire at them, but at a range of not more than 150 paces. When attacked by enemy cavalry in the open, the jagers were to form square and retreat slowly. If the enemy cavalry attacked the square, the jagers were to open fire by files at a range of 150-200 paces.^{clxxi}

There was an addition to the 1811 infantry regulations, titled *On Jager Training*, in which a new method of forming a jager battalion in skirmish order was prescribed. According to this document, the first and second ranks of the six center platoons were to be formed in skirmish order; the first rank formed the first line (or "chain") of skirmishers; the second rank, the second line, while the first (grenadier) platoon was to be in reserve behind the right flank of the skirmish lines; the eighth (*strelkovyi*) platoon, in reserve behind the left flank and the men from the third rank of the six center platoons, in reserve behind the center. The *strelkovyi* platoon could also be sent to skirmish to cover the battalion during various formation changes. When in a skirmish line, the men were to act in pairs. The interval between two pairs was to be two paces in the "thick chain" and five paces in the "double chain"; the interval between two men in a pair was to be one pace. The men in a pair were to protect one another and to fire in turn. Men in the skirmish lines were allowed to fire in any position: to stand, or to kneel, or even to lie down and strict alignment was not required. All men were to be trained to use terrain features to hide themselves and to move at a running pace (150-200 paces per minute).^{clxxii}

However, it is not clear how often this method was actually used. Bagration prescribed in his order to the 2nd Army (25 June/7 July 1812): "During a firefight, one is to push out as few skirmishers as possible."^{clxxiii} Similar recommendations were in the disposition to attack the French at Krasnoi (5/12 November 1812) signed by Kutuzov.^{clxxiv} It is well known that Barclay de Tolly disagreed with the officially-prescribed double chain of skirmishers. In the orders issued to the 1st Western Army before the battle of Borodino signed by his chief of staff, A.P.Ermolov it is written: "The corps commanders are ... to put it into the heads of the *chefs* and commanders of the jager regiments, that in the beginning of a battle one is to push out as few skirmishers as

possible, but to keep small reserves, to refresh the men in the chain and [to keep] the rest behind formed in column. Heavy losses cannot be attributed to skillful actions of the enemy, but to excessive numbers of skirmishers confronted to the enemy fire. In general, one is to avoid a firefight, which never brings any important results, but would imperceptibly cost many men."^{clxxv}

In 1813, Barclay wrote in his *General Instructions on the Order of the Troops on the March, in Camps and in Very Battles* (the end of July/beginning of August 1813) that a chain of skirmishers, which is too thick, is a good target for an enemy and its fire would not be effective enough because of dense smoke from its own fire. He prescribed forming only one-third of the whole number of men sent to skirmish in skirmish order; another third part had to be placed behind the first skirmish line in small detachments ready to support it and the last part of men was to be kept further back as a main reserve, formed in usual close-order formation. He also insisted again that light infantry had to avoid long firefights and advised: "if enemy skirmishers advance impertinently, one is to defeat them with the bayonets, in that, the Russian soldier always has an advantage."^{clxxvi}

As can be seen, instead of the officially-prescribed two thick skirmish lines, Barclay recommended a single, sparse line of skirmishers, supported with small reserves some distance behind it and a strong, formed reserve placed further back. After the Napoleonic Wars, according to an instruction issued in 1818, the double skirmish line was adopted in the Guard.^{clxxvii} The same year, General K.F.A. von Diebitsch, Barclay's Chief of Staff, a son of the Prussian General H.E. von Diebitsch mentioned in the second chapter, wrote to Grand Duke Konstantin: "As to the double chain of skirmishers adopted in the Guard, the C.-in-C. [Barclay de Tolly] has not admitted it is useful to adopt this rule in the army, having been convinced by the experience of his service, corroborated even more in the last war, that in an engagement with the enemy, such a chain is not only useless, but it rather leads to unnecessary casualties and confusion. On the contrary, it is well tried that a single chain with a reserve may be of great use this is why these rules are introduced."^{clxxviii}

Diebitsch probably meant the *Rules of Skirmish Order* printed in 1818 by the Staff of the 1st Western Army. According to the *Rules*, twelve best marksmen and one efficient NCO had to be selected in each platoon and, in each battalion, four officers and four drummers had to be appointed to command them (thus, in each battalion four officers, four drummers, eight NCOs and 96 men were selected). These men were to be used as skirmishers. A half of them had to be formed in a single skirmish line of pairs (the intervals were to be one pace between men in each pair; from four to five paces between pairs in a thick line and from eight to ten paces in a sparse line); another half had to be kept as a reserve, or all of them were to be formed in skirmish order with the eighth (*strelkovyi*) platoon as a reserve.^{clxxix} To replace casualties, twelve more "reserve" skirmishers had to be selected in each platoon, but the total number of men sent to skirmish at one time should not be more than twelve from each platoon.^{clxxx} Skirmishers had to be selected in this way in each grenadier, infantry and jager regiment. If it was necessary to form a whole jager battalion in skirmish order, it was prescribed in the instruction that the first and second ranks were to form a single skirmish line. Each file acted as a pair; the intervals were to be one pace between men in each pair and 4-5 paces between pairs. Double skirmish line is also mentioned (50-60 paces between the first and second line). The third rank doubled files and closed to the right flank of divisions,

forming four reserve units, and it is written that usually four platoons from a battalion were to be formed in this way; the other four were to be kept in close order as a main reserve.^{clxxx}

Barclay de Tolly proposed this method of selecting and pushing out skirmishers in 1816 or earlier, since in a decree to Barclay, dated 18/30 April 1816, Tsar Alexander wrote: "According to your proposal on the training of skirmishers, I ask [you] to select in each platoon of each company the 12 most efficient and skilful men, who are to remain in their places in formation and one should not put them on the flanks near the grenadier and *strelkovyi* platoons. These platoons will serve as a reserve to the skirmishers ..."^{clxxxii}

Thus, it is possible that this or a similar method was used in 1812-14. Indeed, clear mentions of a double line of skirmishers are very rare in contemporary narrative sources. Radozhitskii mentions that, at Dresden (27 April/9 May 1813), Russian troops tried to prevent the French from crossing the river. Initially, he had two guns in the second chain of skirmishers and then some in the first one. He also describes small scale actions near Neustadt (1-3/13-15 September 1813), where 300 jagers and 200 cossacks formed two chains of skirmishers, with small reserves at the front of about 1.5 *verst*s (1.6 km), but from his description, it seems that the second chain consisted of cossacks.^{clxxxiii} Sometimes he uses the word "chains" in plural,^{clxxxiv} that might mean double chain, but in some other cases he uses the word in singular.^{clxxxv} Several times he and other memoirists mention reserves of skirmishers.^{clxxxvi} A whole regiment could be formed in skirmish order, in this case one company on each flank remained in reserve in closed order.^{clxxxvii}

It is also not clear how far forward formed infantry skirmishers were sent. Radozhitskii once mentions jagers in skirmish order 100 *sazhen* (213.4 m) forward from troops in close order (9/21 August 1813).^{clxxxviii} In military instructions and manuals published after the Napoleonic Wars a distance from 200 to 300 paces (142.2-213.4 m),^{clxxxix} and even, if neither side advanced, up to 400-500 paces (284.4-355.5 m) was recommended.^{cxc} Supports or small reserves were to be placed from 60 to 200 paces behind the skirmish line (usually 80-100 paces) and in cover, if possible.^{cxc}

As in the previous campaigns, in 1812-14, jagers usually fought in skirmish order, often in brush, woods, villages and rough terrain.^{cxcii} In battles, jagers usually fought in front of the line infantry regiments. In the beginning of the battle of Borodino, jagers covered the whole front of the army and its flanks. They fought for more than an hour, preventing the French from approaching the main positions of the Russian Army and then they retreated behind line infantry.^{cxciii} In some places, they fought in skirmish order for almost the whole day, as they had in the brush and woods to the south of Bagration's *flèches*. Jagers were usually sent to skirmish by platoons or companies, which relieved each other in turn.^{cxciv} A whole jager regiment could be formed in skirmish order, if necessary.^{cxcv} In skirmish order, jagers maneuvered according to drum signals.^{cxcvi}

At the same time, jagers often fought in close order formations, they were usually sent to carry out particular tasks, which did not require moving the main infantry line, or were used as local reserves. For example, at Borodino, Barclay ordered the 19th and 40th Jager Regiments (a jager brigade of Colonel N.V. Vuich from the 24th Infantry Division, the 6th Infantry Corps) to attack the enemy infantry, which crossed the Kolotcha River,^{cxcvii} but the 1st Jager Regiment arrived first and successfully accomplished the task as can be seen in the memoirs of M.M. Petrov quoted above. General Raevskii was

reinforced by three jager regiments. He used them as a reserve and they played a significant role in recapturing the Raevskii Battery.^{cxviii}

On campaign, jagers were often separated from their divisions and formed in groups of several regiments, which were then used in advance and rearguards, as, for example, was done at Smolensk.^{cxix} In 1812, during the pursuit of Napoleon's army, jagers were sometimes mounted on the spare horses of cossacks to increase their mobility.^{cc}

By 1812 many jager regiments had gained experience during the previous campaigns and fought successfully enough in the 1812-14 campaigns. Major-General P.A. Tutchkov wrote that, at Valutina Gora, the 20th and 21st Jager Regiments occupied the brush on both sides of the road and all efforts of French skirmishers to force them out of the brush and to clear the way for their columns were unsuccessful.^{cci} General Paskevich wrote that, at Borodino, in the beginning of the battle, the jagers of his division fought in brush before the line regiments of his division positioned near the Raevskii Battery and held out against the advancing enemy for more than an hour.^{ccii} Saxon General W.F. Funck wrote that at Byala (6/18 October 1812) the Saxons met excellent Russian jagers: they were agile, their fire was very effective, they did much harm and were especially dangerous to the Saxon officers (according to Russian sources, it was the 37th Jager Regiment).^{cciii}

In 1811 an official instruction on the detachment of skirmishers in musketeer and grenadier regiments was issued. The best marksmen were to be placed in one of the central files in each section. Upon a signal, they were to march forward and to form themselves in skirmish order. Unlike the jagers, they were to fight in groups of three men, not in pairs (the interval between the groups was five paces). The skirmishers detached from a battalion were to form a line or a "chain" at a distance of 80-100 paces forward of their battalion. They had to be under the command of three officers: one officer was to command all of the skirmishers and the other two officers were to each command a half of the skirmish line. The trios of men were to fire in turn; first the central man, then the right one and last, the left one, in such a way that, at any moment, the muskets of two men of the three would be loaded (each man, in his turn, was to run 15 paces forward, to fire and then, if they were to advance, to reload standing in the place, or, if they were in defense, to return to his place in the skirmish line).^{cciv}

However, it is not clear whether this instruction was ever followed. According to various memoirs, in 1812-14 skirmishers from grenadier and infantry regiments were detached in various ways, as in the previous years: a company or a platoon was sent^{ccv} or volunteers were called^{ccvi} (it is interesting that both methods were sometimes used in the same battalion in the same combat). It is also not clear how often the *tirailleur* (*strelkovye*) platoons of infantry regiments were actually used as skirmishers. Mitarevskii mentions that, on the march to Maloyaroslavets, platoons of skirmishers from line infantry regiments were sent forward, together with jager regiments,^{ccvii} so they were sometimes used as a support to jagers, although Mitarevskii was an artilleryman and might be wrong (in another passage he says that once on a march 'strelkovye commands' were sent to the side from where the enemy was expected^{ccviii}).

The *Instruction to Infantry Officers on a Day of Battle* contains a few recommendations on skirmishing: "An officer commanding the skirmishers sent in front of the troops will not move his chain forward without permission from his regimental or

battalion commander. His duty is to hide his men if possible, but he, himself, must move incessantly along the chain so as to supervise his men, observe enemy movements and enemy unformed cavalry charging at him. Having let them come to 150 paces of him, the officer must fire and seeing that he has not stopped them by fire, at a signal, he gets his men together in groups of 10, back-to-back. [Once formed in these hasty squares] the skirmishers were to fire again and stab the approaching horsemen with the bayonets and he was to be confident that his battalion or regiment will rush forward to help them.^{ccxi}

In the original instruction written by M.S.Vorontsov, for the officers of the Narvskii Infantry Regiment in 1810, it is written that skirmishers were to let enemy cavalry ride up to a range of 50 paces and then to fire special musket buckshot.^{ccx} In the *Instruction to Infantry Officers*, it was recommended that this buckshot be used in skirmish order, in woods, villages and at a short range against cavalry.^{ccxi} Ya.O.Otoshchenko, a major in the 14th Jager Regiment in 1812-14, mentions the use of buckshot. He writes that his jagers made it themselves from regular musket bullets. They tied the cut-up ball tightly with rags (probably having cut a bullet into several pieces) and loaded their muskets with five such projectiles at once. Otoshchenko writes that, on 16/28 August 1813 he, with his jagers, drove enemy skirmishers out of vineyards and when an enemy column appeared at an open place, he ordered his men to use this buckshot and, in a short time, the enemy column lost many wounded men and was dispersed.^{ccxii}

In general, skirmishers from infantry and grenadier regiments were usually detached in order to protect close order formations from enemy skirmishers^{ccxiii} or to support jagers, but sometimes it was necessary to form a large part of an infantry, or a grenadier, or even a Guard battalion in skirmish order. Timofeyev, commander of the 2nd battalion of the Leib-Gvardii Litovskii (Life-Guard Lithuanian) Regiment, writes that, at Borodino he, with his battalion, was sent to hold a hill against numerically superior enemy forces. He formed six platoons in skirmish order and kept one grenadier and one fusilier platoon as a reserve. With his usual attention to details, Timofeyev describes how the enemy troops were formed. He says that two battalions of light infantry were formed in line; two artillery pieces were placed on the left flank; two on the right and two between the battalions; two battalions were placed in the second line behind the left flank; another one was behind the right flank and there were also a column of grenadiers and a column of dragoons behind the center of all the infantry. To make the enemy convinced that he had more men than he really had, Timofeyev formed his two reserve platoons in two ranks and placed them behind the hill. When the enemy made an attempt to move forward, he marched his reserve up the reverse slope of the hill and stopped them when they could see the enemy soldiers down to the waist level over the ridge of the hill, assuming that the enemy also would see his men only from the waist up, too. Timofeyev says that the enemy stopped and opened fire, because they probably took his weak reserve for the head of a strong column. He then ordered his reserve to "about face" and marched them back behind the hill. Some time later, the enemy made a new attempt to advance, but was stopped again by the same trick.^{ccxiv} In the final stage of the battle of Borodino, a battalion of the Tavricheskii (Taurida) Grenadier Regiment formed two companies in skirmish order and two others were kept in reserve.^{ccxv} In 1812 and 1813 sometimes a whole battalion or even a regiment was deployed as skirmishers.^{ccxvi}

In open terrain, enemy cavalry was very dangerous to skirmishers. When attacked by unformed cavalry or mounted skirmishers, it was recommended, in the *Instruction to Infantry Officers*, that enemy cavalrymen be allowed to close to 150 paces and then to fire. If the fire did not stop the enemy, then the skirmishers were to gather in groups of ten or so, back-to-back forming what is commonly called a “hasty square”, to defend themselves with fire and bayonets and to rely upon the help from the formed units, which were to march forward.^{ccxvii} Radozhitskii saw, at Ostrovno, how jagers, threatened by enemy hussars, gathered into a small group; a squadron of enemy hussars tried to cut them off, but the volley fire of Russian line infantry and the cannister of Radozhitskii’s guns scattered the hussars and saved the jagers. He also saw, on 9/21 August 1813, how jagers were attacked by enemy lancers, describing it as follows: “the jagers ran together in a crowd and fired; some of their shots were successful. Some lancers fell from their horses at full gallop; but others, having dashed into the mob, fell on the jagers, who threw themselves to the ground to avoid the saber blows and then got up.”^{ccxviii} General G.V.Rosen wrote in his report on a rearguard action on 15/27 August 1812: “When the last battery withdrew under the cover of skirmishers from the 1st Jager Regiment, some enemy cavalry rushed at them and cut them off, but two companies of the same regiment, under the command of Captain Akhmylov, opened battle fire, drove away the enemy cavalry and saved the skirmishers by that and then, having joined up [with them], retreated, under cover of our flankers and cossacks, to the main road.”^{ccxix} Major-General A.A.Pisarev described actions of the Moskovskii Grenadier Regiment at Leipzig. French cavalry attacked a group of Russian skirmishers, who then fell back. The regiment, formed in two columns, marched forward and drove the French horse off with musket fire. The French cavalry rallied, reformed and charged the regiment. The Russians then formed squares and repulsed the attack, reformed into columns, they attacked French infantry and forced them back.^{ccxx} I.M.Kazakov, an ADC to General A.P.Ermolov in 1814, writes that at the battle of Paris he saw “an attack of French cavalry against a chain of our skirmishers, who fired, gathered into small groups and the French, galloping in the intervals, were counterattacked by our hussars, who sabred them a fair bit; all this was carried out as if at training maneuvers.”^{ccxxi} As can be seen from these examples, skirmishers could frequently rely upon the help of formed reserves and friendly cavalry and much depended on good cooperation of skirmishers with their supporting units.

At Borodino, the 19th Jager Regiment, fighting in skirmish order, was attacked by enemy cavalry and, having no time to gather and form square, the jagers lay down on the ground, according to the special order given by Colonel N.V.Vuich, *chef* of the regiment. They then allowed the enemy cavalry to ride over the men. A part of the Shirvanskii Infantry Regiment followed this example. When the enemy cavalry passed to their rear, the jagers stood up and fired at them.^{ccxxii} French cavalry officer F. de Brack mentions this trick as a characteristic tactic of Russian infantry.^{ccxxiii}

Skirmishers sometimes attempted to attack enemy skirmishers with the bayonet, even in spite of their commander’s efforts to restrain them from doing so. At Smolensk (5/17 August 1812) I.P.Liprandi, a quartermaster-officer in the 6th Infantry Corps in 1812, was sent to the 24th Infantry Division to deliver an order, which forbade movement beyond a preordered line. He found Major-General I.D.Tsybulskii, *chef* of the Ufimskii Infantry Regiment, in the line of skirmishers. Tsybulskii said to Liprandi that he was not able to stop his men, who rushed forward with bayonets, at the enemy occupying a

cemetery. Liprandi saw how the general tried to drive his skirmishers back, but only those obeyed who were near him, while the others shouted “ura” and rushed forward. The skirmishers of the other regiments of this division did the same (the Shirvanskii, Butyrskii, Tomskii Infantry; 19th and 40th Jager regiments, all for the first time in action against the French).^{ccxxiv} Major-General A.A.Pisarev, commander of the first brigade of the 2nd Grenadier Division in 1813, wrote that, near Teplitz (in the Czech Republic)(29 August/10 September 1813), his skirmishers allowed the French skirmishers to come up close to them and then, with a concerted shout of “ura”, they attacked with the bayonet and drove them away.^{ccxxv}

In some situations bayonet attacks were useful; for example, when enemy skirmishers were in cover and the Russian skirmishers were in the open, or when it was necessary to drive the enemy skirmishers off as quickly as possible. In these cases an attack with the bayonet was much more effective than a firefight. General N.N.Raevskii, commander of the 7th Infantry Corps in 1812, writes with approval that, at Saltanovka, seeing the Smolenskii Infantry Regiment marching in column to attack the enemy, jagers rushed forward at the enemy skirmishers.^{ccxxvi}

A fast attack was also useful when it was necessary to occupy a woods. A.I.Antonovskii, a junior officer in the 26th Jager Regiment, mentions several times in his memoirs that, when he was sent to skirmish with a platoon or company and it was necessary to drive enemy skirmishers from a woods, he charged with the bayonet, put the enemy to flight and only then formed his men in skirmish order to chase the enemy with fire.^{ccxxvii}

In woods, it was difficult for the officers to effectively control their men formed in skirmish order, to move them and especially, to use reserves. Antonovskii writes, in his memoirs: “It is difficult to gather skirmishers scattered in woods and to put them in due order – there each [man], being commander for himself, acts on his goodwill. In woods, it is impossible to observe how men act.” He describes one such disorderly fight in woods. On 4/16 August 1812 he was sent with his company, together with another company of the same regiment, to drive the enemy out of woods to the right of the road to Polotsk. He was met with musket fire, attacked with bayonets without firing a shot, went through the woods to its opposite edge and, observing enemy columns in the fields beyond, remained in the woods and started a firefight with enemy skirmishers. His regimental commander decided to reinforce the two front companies and sent another two companies into the wood, but they, once under enemy fire, started to reply before coming in line with the front companies and so Antonovskii and his men were under enemy fire from the front and under “friendly” fire from the rear. He ordered his drummer to beat a signal to inform the reinforcements that he was there, but he only drew enemy fire at himself by that. He and his jagers were in such a situation for a half an hour, until the reinforcements moved to the right of his position. He wrote that, in this affair, he probably lost more men from “friendly” fire than from the enemy’s.^{ccxxviii}

The *Instruction to Infantry Officers* contains the following interesting paragraph: “Jager maneuvers are not mentioned here, because the men in all jager regiments are trained with them and it is impossible to sufficiently explain them to the others here. But the following little-known maneuver is worth of frequent use and it may be useful to any kind of infantry. When an officer fights in woods in skirmish line, then let him place a considerable part of his reserve at one flank by files; the head of this column should be

several paces behind the line and several paces to the side; if the line is forced to retreat, this reserve is to remain at its place and is to be hidden; and as soon as the enemy would be carried too far in pursuit of [our] retreating [skirmishers], then this reserve, having fired on his flank suddenly, will surely throw him in disarray. If the enemy, having recovered, turns against this reserve, then those who have been just retreating, will themselves hit him in flank and so these two parts will help one another in the best way.^{”CCXXIX} This maneuver is similar to that used by Kulnev in Finland in 1808 and described by Davydov.

Not all commanders fully understood the use of skirmish order and sometimes some of them used it when it was inappropriate. Major-General E.I.Tchaplits writes in his memoirs that, at Berezina, when the advance guard of the Army of the Danube, under his command was already engaged in combat, he was informed by an ADC to Admiral P.V.Tchichagov, commander of the army, that strong reinforcements were sent to the advance guard. To his great surprise, Tchaplitcs suddenly heard shouts of “*ura*” and drumbeats in the rear and then saw Russian infantry in skirmish order there. He tried to reform them, but all officers said that they were ordered to advance in skirmish order. General A.L.Voinov said to him that it was the order of Lieutenant-General I.V.Sabaneyev, Chief of Staff of the army, who thus tried to make an impression on the enemy that there were more Russian troops than there really were. When French cavalry attacked them, a large part of the Russian infantry was scattered and 700 men were taken prisoners.^{CCXXX} Discussing the events at Berezina in his memoirs, Admiral Tchichagov wrote that Russian infantry were unshakeable when in formation, but had not enough wit and adroitness to fight in skirmish order,^{CCXXXI} but it can be clearly seen that, in this instance, the infantry were not guilty; it was a fault of higher commanders. At Kalish (1/13 February 1813), Duke Eugen von Württemberg, who, as S.G.Volkonskii wrote, was inclined to fighting in skirmish order, attacked the town with infantry in skirmish order and, in the ensuing combat, the enemy had a great advantage, because they were in buildings and the Russians in the open.^{CCXXXII} The Duke himself, wrote that, in the previous campaigns, there was a general tendency in the Russian Army to push out a lot of skirmishers. Even in 1812 whole units were often dispersed in skirmish order and only in 1813 the proper proportion was found and now only a certain part of each battalion was pushed out to skirmish.^{CCXXXIII}

Sometimes, officers commanding skirmishers persisted in defending a position despite all its disadvantages. After the battle of Dresden, somewhere near Pirna, N.N.Muravyev, an officer of the General Staff, saw “a jager company, consisting of recruits in ragged uniforms, under the command of a young officer. The company was in a firefight with the enemy standing on a steep bluff, so that [the French were] covered up to the head, while ours were absolutely open. The poor jagers had come to the end of their tether, because, for several days, they were without food and at work. They had already taken heavy losses and attempted to turn to flight; but the officer bravely dashed forward with his unsheathed saber and stopped them with curses and threats and the recruits, in their turn, poured oaths on him, but, nevertheless, they were forced to return into the fire.”^{CCXXXIV}

Troops that were not able to fight in skirmish order were sometimes sent to skirmish. Antonovskii mentions that, at the second battle of Polotsk, his jagers were reinforced by volunteers from St.Petersburg and Novgorod militia. He writes that they

were confused by the first enemy shots and when they saw some of them killed or wounded, they were intimidated, crowded together and started to fall back in disorder. Antonovskii says that they were ordered to lie down on the ground and to fire in this position. In regular troops, this trick was abandoned long ago and looked ridiculous; the enemy skirmishers came up closer, intensified their fire and the militiamen ceased their fire.^{ccxxxv} R.M.Zotov, a *praporshchik* (ensign) in another battalion of the St.Petersburg militia, wrote that, at the second battle of Polotsk, he was sent to skirmish with ninety men from the battalion. They had fought relatively successfully until they had the imprudence to fire at French cuirassiers, who marched past them. Rear squadrons of the French cuirassiers marched against them. They kept the French at bay until they had spent their ammunition and then the French sabred them. Zotov was wounded by two pistol shots and a few sword cuts and fell unconscious. The French counted him for dead, but he had survived, because his thick, warm clothes protected him from most of the sword cuts.^{ccxxxvi}

Skirmishing required aimed fire and aimed fire required good weapons. Starting from 1809 rifles in jager regiments (twelve in each company) gradually fell out of use.^{ccxxxvii} The muskets of Russian infantry were not good and there were many old muskets. At Smolensk (3/15 August 1812) General Paskevich found muskets in one of his regiments so bad that he ordered the regiment re-equipped with French muskets taken from dead enemy soldiers (there were enough of them lying on the glacis).^{ccxxxviii} Muskets of different calibers were in use in the army. Attempts were made to distribute muskets so that all the muskets in a given regiment were of the same caliber, but such efforts were not always successful during the 1812-14 campaigns. In June 1813, Radozhitskii inspected muskets in General Wittgenstein's troops. He visited 28 regiments, inspected about 30,000 muskets and wrote a report with a table showing how many muskets of each type were in each of the regiments. In his memoirs he writes:

I saw [Russian] muskets from Tula dated from 1806 to 1809 mostly; they were very similar in shape to the French muskets marked *Liege* and of the same caliber; there were many old muskets of larger caliber from Tula in line infantry regiments, dated from 1797 to 1800; they were so worn out with firing that they were non-functional. In some regiments there were English muskets marked with a crown; French muskets marked *Maubeuge*; Prussian [muskets] marked *Potsdam* and even Swedish ones. The most light and well-made [muskets] among all were the French muskets, marked *Liege*; the English muskets were heavy, of a larger caliber than the French ones, but more durable in use; the Prussian and Swedish ones, as well as our old ones from Tula, were very unwieldy, heavy and were non-functional.^{ccxxxix}

He noticed that there were muskets of various types in some regiments and concluded that it was a result of disorder in hospitals, because he found that mostly men who returned from hospitals had muskets of types different from the main type of a particular regiment.^{ccxli} Mikhailovskii-Danilevskii writes that, in some infantry corps, there were whole battalions formed from men from regiments of other corps. These men were returned from detachments, hospitals, stragglers, etc. During the armistice, they were sent to their regiments.^{ccxli} However, during long and intensive campaigns, many

muskets failed and soldiers used any available muskets they could get. Otroshchenko writes that, at the end of the 1814 campaign, there were Russian, British and French muskets in the 14th Jager Regiment.^{ccxlii}

In 1812, and at the beginning of 1813, some Russian commanders, including Barclay de Tolly, still considered the French skirmishers superior to the Russian skirmishers in agility and marksmanship and thus more effective, especially in woods.^{ccxliii} This was an additional reason to avoid a prolonged firefight, in some situations. In 1813 the abilities of the French and their allies to fight in skirmish order significantly declined: Radozhitskii wrote that, starting from the battle of Bautzen the superiority of the French skirmishers in rough terrain had vanished.^{ccxliv} A.A. Pisarev writes that, at Leipzig, young French infantrymen were formed in open terrain in a skirmish line that was too thick.^{ccxlv}

Skirmishers alone could not achieve much. Good cooperation between skirmishers and formed infantry was very important. There is an interesting instruction in the *Rules of Skirmish Order* printed by the Staff of the 1st Western Army (1818) on how infantry was to attack an enemy. When a commander saw that an enemy line was in confusion, that enemy artillery fire became weaker and decided to attack, he was to order his battalions to form columns of attack, to reinforce his skirmish line and to order it to advance with brisk fire. The skirmishers were to especially concentrate their fire at those points of the enemy line, where the infantry columns marching behind them would be directed. The columns advanced in two lines, in checkerboard order; the distance between the lines was to be reduced to 150 paces. When the battalions of the first line were at a distance of 100 paces from the enemy and the enemy did not retreat, the battalion commanders would order their grenadier and *strelkovyi* platoons, which were in the rear of the attack columns, to march obliquely forward at a running pace; grenadier platoon to the right, *strelkovyi* one to the left, and then to join the front platoons of their columns from the flanks. The skirmishers were to fire, but to advance at a slower rate. At a range of 50 paces from the enemy, they were to stop and to open gaps in the skirmish line for the columns of the first line advancing behind them, which would then march through the skirmish line and attack the enemy. If the commander decided that the battalions of the first line had suffered too many casualties during the advance to attack the enemy, he should then order them to retreat under cover of their grenadier and *strelkovyi* platoons, which had to stop and fire, while the battalions of the second line would attack the enemy. If the enemy retreated, skirmishers were to pursue them and the grenadier and *strelkovyi* platoons had to follow them as a reserve.^{ccxlvii}

In villages, woods and rough terrain, the cooperation between skirmishers and formed infantry was very important. As can be seen in the memoirs of Andreyev on the combat at Krasnoi, cited above, and in a diary of General V.V. Vyazemskii, infantry (usually jagers) occupied villages and towns by companies, placing a line of skirmishers along the outer buildings and keeping reserves at important places inside the village in the streets where it could advance to threatened sectors.^{ccxlviii} The *Instruction to Infantry Officers on a Day of Battle* contains some recommendations on how to defend a village: "When a regiment is assigned to defend a village or rough terrain, where it will be forced to occupy the position with separated detachments, then officers who occupy their places with their units as they will be assigned from their regiment's commanders, must observe: 1) not to violate the instructions given by their commander; 2) fire from where

they can expect the enemy coming at them and 3) know what unit they are to support. Having hidden themselves, it is always better to allow the enemy to come closer, in order to kill more men with the first shot, which, in any case, will confuse them. The officers should not be content with firing only, but to look for an opportunity to charge with the bayonets and to use it without waiting for the order. In such charges, one must always lead by example and charge with bayonets, shouting "ura!", in order to draw the attention of the battalion or regimental commander, who is obliged to ride there immediately, to see whether it is necessary to reinforce him or to return him back to the original position. At this shout, "ura!", other officers commanding other units are by no means to leave their assigned positions; they are only to observe their instructions and be confident that the commander will ride there and put all things in their necessary order.^{ccxlviii}

The *Instruction* also contains recommendations on how to attack a village: "If a regiment is ordered to attack a village or rough terrain held by the enemy and according to the commander's decision it will be necessary to attack in several small columns, then the commanders of these small columns, having received instructions to where to direct their attack, must not become locked in firefights in these cases; since it is unfavorable to be engaged in a firefight with an enemy who is in cover; it is necessary to quickly charge him with the bayonet and, after driving him out of his first position, not to pursue him too far, but having sent a part of the third rank, to occupy places convenient to defense and if after that it is impossible to drive the enemy farther with firing, then to charge him with the bayonet again. One will, in any case, drive the enemy out of his strongholds more quickly and with fewer casualties by such courageous attacks than with firefights. In all such bayonet charges, it is necessary that the soldiers should shout "ura!", to let the other columns know that they are fighting successfully and offensively and to intimidate the enemy; in any other case and standing in place; one must never shout "ura!", because instead of benefit, only confusion will be produced."^{ccxlix}

Military manuals printed after the Napoleonic Wars contain more detailed instructions on the defense and attack of villages. It was recommended that the outer edge of a village be occupied with a thick line of skirmishers (6-8 paces between pairs) placed behind hedges, in ditches, etc. Reserves were to be placed behind the nearest buildings, all other troops, behind the village, on the roads, at squares and at the most important streets. It was important to provide the reserves with a possibility of moving within the village freely. Troops were to clear paths, if it was necessary. If there was a ravine, a ditch, or a patch of trees at a distance of from 200 to 300 paces in front of the village, it was recommended that it be occupied by skirmishers. If the enemy entered the village, it was necessary to counterattack him, to keep him busy from the front with skirmishers and to attack him in the flanks by columns. Attacking a village, if it was impossible to attack from the flank, it was necessary to advance quickly, to occupy a few buildings, then to rally and continue to advance.^{cc}

When defending a woods, a similar method was prescribed. A thick line of skirmishers was spread along the front edge of the wood; reserves of skirmishers 30-80 paces behind the flanks of the line and near roads; columns 100-150 paces back and any local obstacles up to 200 paces in front of the wood were to be occupied by a few picked men. In an attack on a woods occupied by an enemy, it was necessary to advance quickly without firing and to try to carry prominent parts of the woods. In woods, the most

important aim was to find the enemy flanks and to secure one's own flanks. In order to do that, it was necessary to send out patrols from three to six men strong.^{ccli}

In reality, fighting in villages, woods and rough terrain often took a very disorderly form. Myravyev wrote that, at Kulm: "[our] other battalions were engaged in a hot firefight a little to the left. They fought in closed terrain, intersected with marshes and stone walls; [they] did not stand in chain, but in mobs and fought desperately against superior numbers."^{cclii}

V.S.Norov also left us a vivid picture of the combat: "Hot fighting started at one time in the gardens, in the village and in the woods along the mountains. Here, Frenchmen intermingled with Russians; both sides in small groups leapt over ditches and heaps of rocks separating gardens and woods, clashed at clearings and fought with bayonets repeatedly."^{ccliii}

Chapter 5

Cavalry

Organization, Armament, and Equipment.

A decree issued by Alexander I (8/20 November 1810) changed the organization of all cavalry regiments. The reserve squadrons and half-squadrons were abolished, and, instead of them, in the cuirassier and dragoon regiments, one field squadron became the reserve squadron; in the hussar and in the uhlan regiments, two field squadrons (one from each battalion) became reserve squadrons. Each cuirassier or dragoon regiment now consisted of four field squadrons and one reserve squadron; each hussar or uhlan regiment had eight field squadrons and two reserve squadrons.^{ccliv} There were 44 officers in each heavy cavalry regiment and 82 officers in each light one (including one general or *chef*), and each cavalry squadron of whatever kind consisted of fifteen NCOs, three trumpeters, and 148 privates (one NCO and twenty privates had no horses in peacetime).^{cclv}

In 1810 all cavalry regiments were stripped from infantry divisions and organized into cavalry divisions. Cuirassier divisions consisted of five cuirassier regiments each, while those formed with dragoons were organized with four dragoon regiments and one uhlan or hussar regiment. In 1811 the cavalry divisions were renamed into cavalry corps, but the cuirassier divisions were still called divisions. One hussar regiment was attached to each infantry corps, but when several corps acted together, the hussar regiments were grouped together or attached to one to the cavalry corps.

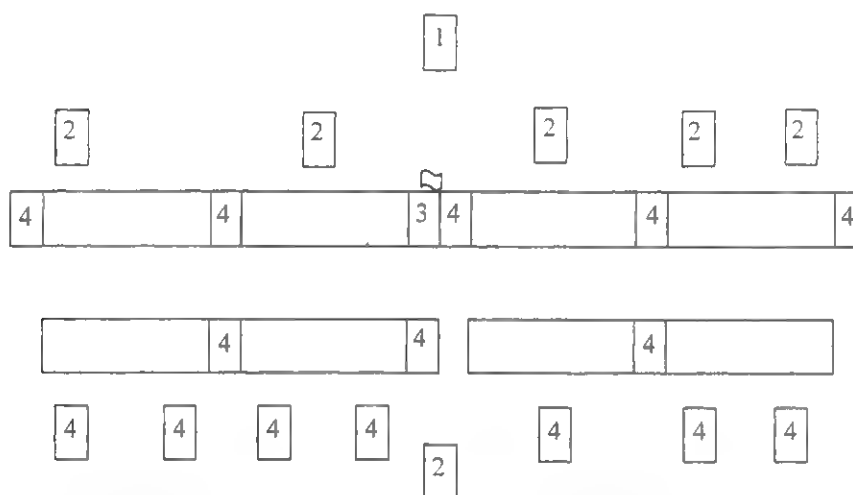
In March 1812, there were six Guard Cavalry Regiments (two heavy: Kavalergardskii (*Chevalier Garde*) and Konnogvardeiskii (Horse Guard), and four light: Dragoon, Uhlan, Hussar, and Cossack), eight cuirassier regiments, 36 dragoon regiments, five uhlan regiments, and eleven hussar regiments.^{cclvi}

In April and May 1812, on the initiative of Barclay de Tolly, the first-rank men in the hussar regiments of the 1st, 2nd, and 3rd armies were armed with lances of the type used in the uhlan regiments (2.85 m long), and uhlans were sent to the hussar regiments to train the hussars to use the lances (hussar regiments of the Army of the Danube were armed with lances later). Soon it was discovered that it is too difficult to use a lance together while carrying a carbine slung on a cross-belt, and the men armed with lances abandoned their carbines.^{cclvii} Also in 1812, cuirasses were introduced again; the regiments of the 1st Cuirassier Division received them in June, before the campaign; the regiments of the 2nd Cuirassier Division, right in the course of the campaign, in the end of July/beginning of August, so by the battle of Borodino, all cuirassier regiments had cuirasses (the four reserve squadrons that formed the converged cuirassier regiment in General Wittgenstein's 1st Corps, defending the road to St.Petersburg, had no cuirasses).^{cclviii} Because of a shortage of firearms at the end of July 1812 the cavalry regiments were ordered to hand in all other muskets and carbines, except for only ten per squadron.^{cclix} It was planned to use the dragoon muskets and hussar carbines to arm militia. In the beginning of the 1813 campaign, pioneers were armed with dragoon muskets.^{cclx}

At the very end of the 1812 campaign, each cavalry regiment was ordered reorganized, with six field squadrons and one reserve squadron. Each regiment was to

consist of 55 officers, 22 trumpeters, 126 NCOs, 1,260 privates (in each squadron, two NCOs and twenty men had no horses in peacetime).^{cclxi} Many regiments during the 1813-14 campaigns were too weak and so they remained organized in four or even in three squadrons; for example, the Novorossiiskii Dragoon Regiment consisted of four squadrons in 1813, but, in the beginning of the 1814 campaign, it was reorganized into three squadrons.^{cclxii} Also in the beginning of the 1813 campaign, His Majesty's Cuirassier Regiment was incorporated into the Guard,^{cclxiii} and many dragoon regiments were reformed into other types of cavalry: two dragoon regiments became cuirassiers, seven were changed into uhlans, eight became mounted jagers (a new kind of light cavalry similar to the French *chasseurs a cheval*), one became a hussar regiment, and all cavalry was organized into divisions of four regiments of the same type (except the Guard Light Cavalry Division): three cuirassier, four dragoon, two mounted jager, three hussar, and three uhlan divisions.^{cclxiv}

Fig. 25. Cavalry squadron 1812-1820.



1 – Squadron commander.

3 – Standard bearer.

2 – Officer.

4 – *Unter-ofitser* (NCO).

Officers were to be placed according to their experience, not rank.

In squadron without standard, there were no standard bearer, no gap in the second rank, and two NCOs behind the second platoon.

Chapter 6

Theory.

A.I.Khatov wrote in his book, titled *General Essay on Tactics*, that squadrons should not to be very large; 50-60 files would be the best number.^{cclxv} In general, formations and tactics of cavalry described by Khatov are not very much different from those prescribed in the 1796 cavalry regulations. The formation and deployment of columns of platoons and of squadrons, and some maneuvers, for example, an attack on enemy infantry with the fourth platoon deploying and firing pistols to provoke the infantry into firing, remained the same.^{cclxvi} The only significant differences are that Khatov recommended that wheels be executed by threes,^{cclxvii} not by twos or fours as prescribed in the regulations, and that he did not recommend attacking while in line without intervals. He argued that, to prevent any confusion during fast movements of a long cavalry line, it was necessary to have intervals of 15-25 paces between the squadrons in the line.^{cclxviii} Khatov believed that speed was the most important factor in a cavalry charge. He recommended an attack be started when cavalry was 600 paces from the enemy, that the first 200 paces be covered at a light trot, then 200 paces at a full trot, then 200 paces at a gallop, and the last 60-70 paces at a full speed.^{cclxix} He noted that cavalry charges were more effective uphill than down.^{cclxx} He also wrote that cavalry was usually in full disorder even after a successful charge, although there were no real collisions of opposing cavalry formations at full speed, because usually one side turned to flight, or sometimes both sides went one through another.^{cclxxi}

Khatov recommended forming cavalry in two lines; the second line was to protect the flanks of the first one, to reinforce or to relieve it. The distance between the first line and second one was to be from 200 to 300 paces. The intervals between squadrons in the second line had to be wider than those in the first line, up to the frontage of a squadron.^{cclxxii} Reserves were not to be placed directly behind the second line, because, if the first two lines were put to flight by the enemy, they would disorder the reserves, so the reserves were to be placed in the rear and to the side.^{cclxxiii} He pointed out that flank attacks were very important in cavalry combat, and recommended various ways to protect the flanks and to outflank the enemy by platoons or squadrons placed at the flank and slightly to the rear of a cavalry line.^{cclxxiv} He also recommended the use of cavalry columns of squadrons, with the distance of 30-50 paces between squadrons, to attack an unprotected flank of enemy infantry, or a corner of a square.^{cclxxv}

Khatov also gave some practical recommendations. If the first cavalry attack on enemy infantry was repulsed, one should not try to attack the same infantry with the same cavalry again, because the infantry would be encouraged by their success and the cavalry would be dispirited by the failure.^{cclxxvi} It was necessary to stop fleeing cavalry immediately after it was put to flight; however, it would be better to allow it to retreat some distance and only then to stop and rally, because the time necessary to rally fleeing and disordered cavalry was greater than that for infantry.^{cclxxvii} If cavalry overthrew the first enemy cavalry line, it was to slow down or to stop for two minutes so as to have some rest and to restore order.^{cclxxviii} Cavalry should not attack before the artillery had started to fire; otherwise, all enemy artillery fire would be directed at the cavalry.^{cclxxix}

Khatov also recommended to have some cavalry behind the first infantry line and to keep all other cavalry behind the second one.^{cclxxx}

An anonymous author of an article published in the *Military Journal* in 1810 also argued that some cavalry had to be placed behind the first infantry line in places favorable to cavalry, so it would be able to exploit any success of the first infantry line and protect the infantry if it was disordered.^{cclxxxi} He believed that it was inconvenient to concentrate large masses of cavalry at one place, especially on the flanks, because it was not easy to find suitable terrain that permitted the use of large masses of cavalry, and because large masses of cavalry suffered much from enemy artillery.^{cclxxxii} He also noted that anyone who was ever under fire knew that it was very difficult to rally and form up disordered cavalry under enemy musket fire, however weak the fire was.^{cclxxxiii}

Chapter 7. Regulations and Training.

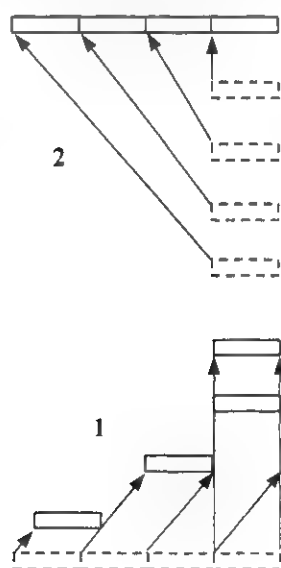
As has been mentioned, the 1796 cavalry regulations were probably already out of use, and Russian cavalry regiments were trained using a variety of instructions. New cavalry regulations were printed in 1812. It is not clear when, exactly, they took effect, possibly in 1813, since the organization of a regiment prescribed in the regulations (six field squadrons) was introduced at the very end of the 1812 campaign.

According to the new regulations, a squadron was divided into two half-squadrons, and each half-squadron was divided into two platoons, which, in their turn, were divided into two half-platoons each. Each platoon was then divided into sections of three or four files each.^{cclxxxiv}

Within each squadron, the first half-squadron was ranked from right to left, and the second, from left to right. Squadrons were formed in two ranks; the distance between the ranks was one pace from the croup of the horse in the first rank to the head of the horse in the second rank. Mounted dragoons were formed in two ranks; dismounted, in three ranks. The best men and horses were to be placed in the first rank, and the best of the best had to be placed at the flanks of platoons, half-platoons, and sections.^{cclxxxv}

The interval between two cavalry squadrons in line had to be equal to the frontage of a platoon; the interval between two regiments, to the frontage of two platoons.^{cclxxxvi} In open column of platoons, the distance between two platoons had to be equal to so many paces as many files as were in the platoon, measuring from the forelegs of the front horses of the front platoon to the forelegs of the front horses of the next platoon; the distance between two squadrons in regimental column of platoons was twice that distance.^{cclxxxvii} In closed regimental column of squadrons, the distance between two squadrons had to be equal to 15 paces, measuring in the same way.^{cclxxxviii}

Fig. 26. Squadron forms column of platoons from line (1) and forms line again (2).



According to the regulations, each horse occupied one pace (one *arshin* or 0.71 m) in the rank and three paces in the file.^{cclxxxix} This estimation was probably too short, and in military manuals published after the Napoleonic Wars, a frontage of a squadron, consisting of sixty files, was considered equal to eighty paces, so one horse occupied about 1.33 paces or 0.947 m.^{ccxc} The average speed of a horse at a pace was estimated as 50 *sazhen* (106.7 m) per minute, at a trot – 120 *sazhen* (256.08 m), at a gallop – 150 *sazhen* (320.1 m) per minute.^{ccxci}

Men were first trained to march straight forward in formation, first in small groups formed in single rank, then in platoons, and eventually, in squadrons.^{ccxcii} Then men were trained to wheel by

platoons on fixed and moving pivots,^{ccxciii} to march obliquely,^{ccxciv} and to wheel by threes.^{ccxcv} The men were then trained in formation changes.

It was prescribed that cavalry should not to move at a charging pace for more than 80 paces, because "The closer a cavalry line would come up to the enemy at a trot, the stronger the shock would be, the farther from the enemy the command 'charge' is given, the weaker it [i.e., the shock] would be, and the more disordered the line would be, and the horses would be completely tired."^{ccxcvi}

Before the attack, standard bearers shifted to the second rank. During a charge and all other combat movements, one trumpeter had to be behind the squadron commander; all other trumpeters, behind the squadron.^{ccxcvii}

In order to train the men to quickly reform immediately after a charge, when they are disordered or even scattered, a squadron commander had to order his men to ride at full gallop some distance, dispersing to the right and left and firing their pistols, and then order the trumpet the signal to rally. At the signal, the men were to form line as quickly as possible; each man did not necessarily have to take his exact place in the formation, but had to get into his platoon and rank, at least.^{ccxcviii}

If it was necessary to retire in the presence of an enemy, a squadron was always to withdraw by half-squadrons. The first half-squadron was to ride forward a distance equal to the frontage of a platoon; then the platoons of the second half-squadron were to wheel back to the left and retire at a moderate pace, or at a trot, if it should be ordered. Having retired the necessary distance, the platoons of the second half-squadron were to wheel again to the left to form line faced to the enemy. At that time, the platoons of the first half-squadron were to wheel to the right and to march backwards past the second half-squadron, and so on. The squadron standard had always to be with the rearmost half-squadron, so when the retiring half-squadron marched past the standing one, the standard-bearer was to ride from the latter to the former.^{ccxcix}

The front and both flanks of the squadron were always to be covered by flankers (mounted skirmishers). One platoon of a squadron or sixteen *carabiniers* (flank files of platoons consisted of picked men) were to be used as flankers. When a platoon was used, two-thirds of its men were to be deployed as flankers and one-third were to remain as a reserve, formed in close order. The commander of the platoon, with one trumpeter, was to be with the flankers. The flankers were to be deployed in two ranks, at a distance of 20-25 paces between the ranks; each man in the second rank had to be right behind the center of the interval between two men in the first rank. Two men, one in the first rank and one in the second rank to the left of the first, formed a pair. The flankers were to be divided into two sections, with an NCO on the right flank of each section. The line of flankers was to be placed 80-100 paces in front of the squadron; the reserves were 25 paces in front of the main line of the squadron. The flankers of the first rank were to ride one-by-one (starting from the right flank of the section) 15-20 paces forward, fire, then to ride back and to take places in the second rank, while the men of the second rank were to take the places in the first rank just vacated by the men of the first rank. If the flankers had to cover a retreat of their squadron, the first rank men were not to ride forward, but to fire right from their places and then to retire behind the second rank, and so on. It is noted that it was impossible to preserve the exact order of firing in real combat, but this training was useful to make men efficient in skirmish order. If a squadron commander wished to deploy the *carabiniers* as flankers, he was to appoint an officer with a trumpeter and two

NCOs to command them, and to form a reserve, if necessary. Flankers were to follow all movements of their squadron, covering it from the enemy in any case.^{ccc}

The flanker training before the 1812 campaign is mentioned in a diary of F.Ya.Mirkovich, an officer in the Konnogvardeitskii (Horse Guard) Regiment.^{ccci} Some *chefs* and commanders of cavalry regiments introduced in their regiments various methods of training not mentioned in the regulations. For example, Major-General I.S.Dorokhov, *chef* of the Izyumskii Hussar Regiment, partly revived Suvorov's methods of training. In his order to the squadron commanders (6/18 June 1812) he recommended they divide their squadrons into two parts during squadron maneuvers; these parts were to ride one towards the other, to fire pistols or carbines, and then ride one through another, files between files, at a pace, then at a trot, and, eventually, at a gallop.^{ccci} According to a letter of an experienced officer writing under the pseudonym Major Prostov to the *Military Journal*, all maneuvers and formation changes were usually carried out at a trot, but N.A.Durova wrote that, in the Mariupolskii Hussar Regiment, in which she served in 1810, all maneuvers were carried out at full speed.^{ccci}

Chapter 8

Tactics.

In large-scale battles, Russian cavalry usually stood and maneuvered in regimental columns of squadrons at half or full distance (the distance between squadrons was equal to a half of squadron frontage or to full squadron frontage).^{ccciv} They formed line when it was necessary to attack or to stand under fire for a long time. Light cavalry regiments were sometimes formed in regimental columns of divisions (a division consisted of two squadrons).^{cccv}

Russian cavalry was usually formed in several lines on a battlefield, most often in two lines, as it is mentioned in a report by Major-General K.K.Sievers, commander of the 4th Cavalry Corps, on the engagement at Shevardino, in a report by Major-General F.K.Korf, commander of the 2nd Cavalry Corps, on the battle of Borodino, in the memoirs by Major-General K.A.Kreutz, commander of the 2nd Brigade of the 3rd Cavalry Corps, and in a report by Major-General I.V.Manteufel, commander of a cavalry brigade in General F.F.Winzingerode's corps, on the battle of Dennewitz (25 August/6 September 1813).^{cccvi} At Leipzig (5/17 October 1813), Major-General I.V.Vasilchikov, commander of cavalry in General Sacken's 11th Corps, attacked by brigades: one brigade (the Mariupolskii and Akhtyrskii Hussar Regiments) in the first line; another (the Aleksandriiskii and Belorusskii Hussar Regiments) in the second one, and that probably was the usual battle array of a cavalry division. In this attack, the Russian hussars overthrew the French cavalry, forced French infantry to form squares hastily, captured five French artillery pieces behind the French infantry, and forced their way back through the French lines with the captured pieces and prisoners.^{cccvii}

If the first line was disordered or overthrown, it retired behind the rear line to rally. Major-General Dorokhov wrote, in one of his orders (3/15 August 1812) that, if a squadron or a unit was signaled to reform after an attack, or it was disordered by the enemy, it was strictly forbidden to retire directly towards the reserves or to artillery. Instead, it was to find an open place at the flanks or in the center, and, having retired 50 paces behind the reserves, to immediately form line facing the enemy.^{cccviii} After the retreat of the first line, the second line became the first; it attacked or counterattacked in its turn, and so on. A.I.Mikhailovskii-Danilevskii, who was present at General Headquarters, described the cavalry engagement at Liebertwolkwitz (2/14 October 1813): "One attack followed another, and each one was supported by horse artillery at both sides ... in full attack of one [regiment] at others, opposing regiments repeatedly stopped at a distance of several paces [from each other], and then rushed into a melee; the overthrown [ones] turned to reserves, who, in their turn rode, in the first line and renewed the fighting, which had not been decided for a long time."^{cccix}

Bagration prescribed, in his order to the 2nd Army (25 June/7 July 1812), that cavalry was to be formed in checkerboard order.^{cccx} This formation was convenient to permit a retreat, line-by-line.^{cccxi} It is mentioned mainly in the context of advance and rearguard actions. For example, the famous military theorist, C. von Clausewitz, who served in the Russian Army in 1812, mentioned that Major-General P.P.Pahlen formed the cavalry of his rearguard near Vitebsk (27 July/8 August 1812) in three lines in a checkerboard order.^{cccxii} General P.P.Konovnitzyn wrote that, in rearguard actions during

the retreat from Vyazma to Borodino, Russian cavalry was usually formed in checkerboard order, and attacked by echelons.^{cccxi} The checkerboard order was also used in large-scale battles. At Borodino, the Chevalier Guard Regiment was formed in this way (the first and fourth squadrons were in the first line; the third and fifth were in the second).^{cccxi}

Clausewitz noted that, in the beginning of the 1812 campaign, there were some old habits still in the use by cavalry in the Russian Army. At the rearguard action near Vitebsk, General Pahlen placed all his cavalry (32 squadrons) on the right flank, because there were many small woods and brush along the position, and the only open place was on the right flank between the thick woods, brush, and the river. Clausewitz wrote that there existed an old, commonly held opinion that cavalry should fight on open terrain. He thought that, in this case, it was not a good decision, because the open place was too narrow for the 32 squadrons, not more than 600 paces wide, and so the cavalry was formed in three lines. As a result, it took significant casualties from enemy artillery fire, while Pahlen's infantry (14 battalions) had to occupy a position too long for that number of troops, and so it was deployed in two lines with large intervals between the battalions, without any reserve, without cavalry support, and its left flank was not protected. Clausewitz believed that it was not necessary to keep all cavalry on the right flank, because the enemy was unable to outflank the Russians on the right. It would have been much better to place the cavalry behind the infantry, since in spite of the woods and brush, there was enough room for small cavalry units to act. It would have been possible to support infantry with cavalry and to cover the left flank. It must be noted that General Pahlen fought successfully enough: he delayed the French for a long time and that allowed the main forces of the 1st Russian Army of the West to retreat safely, although Clausewitz ascribed that success rather to weakness of enemy attacks.^{cccxi}

At Valutina Gora (7/19 August 1812) Major-General V.V.Orlov-Denisov, commander of the Life-Guard Cossack Regiment, was ordered to take command of several regiments (the Mariupolskii, Sumskii, Elisavetgradskii Hussar Regiments, two squadrons of the Izyumskii Hussar Regiment, and five Cossack regiments), and to hold in check large masses of French cavalry to the south of the main road to Moscow. He writes in his memoirs that he saw three columns of French cavalry in the brush and behind a ravine, with some infantry ahead of each column. He formed his regiments in four lines in an opening in the scrub, and ordered an attack, line-by-line, preventing the French from exiting the brush and deploying in the open. After an attack, each line was to retreat to the rear of the formation and to reform there. Four pieces of horse artillery were placed at a hillock on the right flank. Initially, the first line was at a distance of a half musket shot from the brush, but then enemy infantry emerged from the brush and opened fire, and all four lines of Russian cavalry were ordered to fall back a bit. As the French infantry marched forward into the clearing, the Russian cavalry was ordered to attack them. The first line had to attack the French infantry and to retire behind the fourth line, the second line attacked the French cavalry, to prevent them from moving or deploying in the clearing, and then also to retire to the very rear, and so on. The first line, consisting of the Mariupolskii Regiment and some of the Cossacks, charged the French infantry with great success, but the second line had not waited for the retreat of the first one, and charged the French too soon. The first line did not follow the order either, and charged

together with the second one, but both were eventually recalled to their places, and the following attacks were carried out in due order.

Orlov-Denisov's forces were taken on the left flank, and he ordered the left wing to draw back. His line became shorter and he placed the Elisavetgradskii Hussar Regiment, formed in column behind the right flank, and two squadrons of the Izyumskii Hussar Regiment behind the left flank. He received reinforcements: two infantry regiments (Pskovskii and Pernovskii) and twelve artillery pieces. He placed the Pskovskii Regiment in the brush on the right flank; the Pernovskii was deployed in squares in the center of the first line of his cavalry, and all artillery was hidden behind the right flank of the first cavalry line. Two French columns approached the right flank and were allowed to come into effective cannister range. The artillery was then unmasked and fired cannister as the infantry opened fire. The enemy columns were then attacked by the Sumskii Hussar Regiment and some Cossacks, were thrown in disorder and driven back.^{cccxvi}

I.T.Radozhitskii, an officer in the 3rd Light Artillery Company, was an eyewitness of these actions. He was with six artillery pieces at the right flank of the Pernovskii Infantry Regiment and saw "blue, red, gray and green hussars, by squadrons, with horse artillery pieces in the brush. A cavalry fight was going on right under our very eyes. It was interesting to see how several squadrons of French hussars rushed at ours, how ours fled at full gallop, but, reinforced by fresh squadrons, turned and drove the French: only [enemy] cannister and bullets stopped their onslaught; ours turned back and were again pursued by the French."^{cccxvii}

At Borodino, Russian cavalry was distributed along the whole line of battle; three cavalry corps (the 2nd, 3rd, and 4th) were placed 300-400 paces behind the second infantry line,^{cccxviii} the 1st Cavalry Corps was behind the right flank, and two cuirassier divisions were held in reserve. Each cavalry corps was formed in two lines; dragoons in the first line, uhlans and hussars in the second.^{cccxi} In the battle plan for Borodino signed by Kutuzov, it is prescribed that cavalry must support the infantry, placing itself behind the intervals between infantry columns.^{cccxa} At Borodino, the Russian cavalry cooperated very much with infantry and often pursued the enemy repulsed and overthrown by infantry.^{cccxi}

Sometimes cavalry was not effectively used. Small detachments were sent to attack the enemy, as little as two squadrons or one regiment, as it had been done in the combat of Shevardino.^{cccxi} Such weak attacks could not produce any decisive effect and cavalry only took unnecessary casualties. Sometimes, such weak attacks were the result of difficult tactical situations. At Borodino, after the Bagration *flèches* were captured by the French, some cavalry regiments were forced to stand in the front line for some time or to support artillery, because there was not enough infantry, and the Astrakhanskii and Her Majesty's Cuirassier Regiments carried out attacks by divisions [two squadrons] against French infantry in skirmish order, as well as French artillery.^{cccxi}

At the same time, at Borodino, Russian cavalry mainly fought against enemy cavalry by brigades, divisions and corps. The French had significant numerical superiority in cavalry, but the terrain prevented the use of large masses of cavalry, and Russian cavalry had some advantages in local counterattacks.^{cccxiv} Barclay de Tolly described cavalry combat in the center: "Enemy cavalry and ours overthrew each other in

turn, then they rallied under cover of artillery and infantry; eventually our [cavalry], with a help of horse artillery, managed to turn the enemy cavalry to flight.^{cccxxv}

The most famous action of the Russian cavalry in the battle of Borodino was a raid of the 1st Cavalry Corps of General F.P.Uvarov (four Guard light cavalry regiments, one line dragoon regiment, one line hussar regiment, and one horse artillery company) and Cossacks under the command of General M.I.Platov (nine Cossack regiments and one Cossack artillery company) against the left flank of Napoleon's army.^{cccxxvi} Their actions were slow. Uvarov's cavalry made several indecisive attacks, while Platov only threatened the enemy, rather than really attacked him, keeping the main part of his Cossacks in woods and brush. Many generals and officers criticized Uvarov and Platov for that, but they did not have enough troops for the assigned task, were not supported by infantry, and were unable to achieve more than they did. The very slowness and indecision of their actions served to increase the success of their diversion, because if they had attacked quickly with all their forces, they would have not achieved any significant results. They would have shown all their forces to the French, who would have realized quickly that there were only a small force of regular cavalry with a few guns and a host of Cossacks. In fact, Napoleon was not sure, for some time, what force threatened his left flank.^{cccxxvii} Eyewitnesses wrote that the French actions slackened along the whole line of battle for some time, and that it was like a breathing space.^{cccxxviii} This gave the Russians some time to rally and to regroup the reserves. Some memoirists even considered the diversion as the main reason that the Russian Army was not destroyed at Borodino.^{cccxxix}

In small-scale actions, light cavalry supported foot skirmishers by squadrons or by flankers to protect them from enemy cavalry, when necessary.^{cccxxx} Light cavalry also threatened enemy foot skirmishers from the flanks, forcing them to delay or stop their advance.^{cccxxxi} Sudden attacks on enemy skirmishers were sometimes very effective: at Hellendorf (3/15 September 1813) French infantry skirmishers advanced on open ground too far from any cover or supporting troops, were attacked by the Sumskii Hussar and Tchuguyevskii Uhlan Regiments, and lost many killed and 400 prisoners.^{cccxxxii}

In theory, dragoons could fight dismounted, and sometimes they really did, but it was done either on very rough terrain unsuitable for actions on horseback,^{cccxxxiii} or when they were used as foot skirmishers against enemy foot skirmishers, if there were no Russian infantry available for the task.^{cccxxxiv} I.K.Arnoldi, commander of the 13th Horse Artillery Company, mentioned in his memoirs that, at Berezina, two squadrons of the Kinburnskii Dragoon Regiment supported an artillery battery, and when French foot skirmishers tried to attack it, the dragoons dismounted and opened musket fire.^{cccxxxv}

Cavalry was sometimes able to do very unusual things, such as capturing and destroying enemy fortified artillery batteries. At the first battle of Polotsk, the reserve squadron of the Glukhovskii Cuirassier Regiment attacked French fortified artillery batteries and captured twelve artillery pieces, but the cuirassiers were able to take away only two of them. A.I.Antonovskii, a junior officer in the 26th Jager Regiment in 1812, mentions in his memoirs that, after the battle, he saw the cuirassiers with two captured pieces. They told him that they had spiked another ten pieces with the ramrods of their carbines, but Antonovskii had some doubts about that.^{cccxxxvi}

In the beginning of the 1813 campaign, Russian and Prussian cavalry had significant superiority over Napoleon's cavalry, both in numbers and quality, but allied

cavalry did not achieved any significant results in the battles of the spring campaign. At Lützen, it was necessary to attack the French with a maximum effort, because Napoleon's army was caught unprepared in its march. Most of the numerous Russian cavalry was concentrated on the left flank, but remained inactive all day, while the superiority in cavalry would have allowed the defeat of isolated French columns, forced the French infantry onto the defensive, or at least delayed the movements of the French troops. As a result, Napoleon managed to concentrate his forces on the battlefield and even to launch a counteroffensive. Some officers blamed General Winzingerode, who was in command of the Russian cavalry on the left flank, for the inactivity of the cavalry, and he was demoted from his post next day; some others criticized the allied C.-in-C. General Wittgenstein for inadequate distribution and management of the cavalry.^{cccxvii} The only benefit the allies got from their superiority in cavalry was that Napoleon was not able to effectively pursue the allied army after the battles of Lützen and Bautzen.

Barclay de Tolly wrote, in his *General Instructions on the Order of the Troops on the March, in Camps, and in Battle* (end of July/beginning of August 1813) that cavalry had to be formed in two lines. A cavalry attack was always to be started at a trot, and by no means at a gallop; otherwise, the cavalry would have become tired and disordered too soon. Heavy cavalry had to change to gallop at a distance of 50 paces from the enemy. Light cavalry were usually placed on the flanks of heavy cavalry and in reserve. Having turned the enemy to flight, heavy cavalry was to stop, and only light cavalry were to be allowed to pursue the enemy, while the heavy cavalry were to follow and support the light cavalry. If the enemy managed to overthrow the heavy cavalry, the light cavalry was to stop the enemy by threatening his flanks.^{cccxviii}

During the second stage of the 1813 campaign, Russian cavalry fought more actively. At Kulm, the terrain was unsuitable to cavalry actions; the battle was fought by infantry on both sides. During the first day of the battle, when almost all Russian infantry reserves had been committed, the French commander, General Vandamme, launched a massed attack. It pushed the Russian infantry back and captured an artillery battery. Russian commander, A.P.Ermolov, counterattacked with the second battalion of the Life-Guard Semenovskii Regiment. The battalion recaptured the battery, but lost almost all its officers. At this moment, General K.F.A. von Diebitsch, Barclay's Chief-of-Staff, provoked the Life-Guard Dragoon Regiment to counterattack the enemy on its own initiative. The Guard Dragoons overthrew part of the French infantry and saved the situation. Vandamme's chief-of-staff later told N.N.Muravyev that this attack inflicted very heavy casualties: one French regiment lost up to 900 men, and another up to 1,200.^{cccxix}

At Liebertwolkwitz, Russian and Prussian cavalry fought on equal terms against good French cavalry recently arrived from Spain, and inflicted heavy casualties on them. A.P.Nikitin, commander of the 7th Horse Artillery Company, wrote that this was due to successful action of Russian horse artillery and that most Russian cavalry was armed with lances.^{cccx} The attack of Russian hussars, under the command of General Vasilchikov at the second day of the battle of Leipzig, has been already mentioned. Unfortunately, at the first day of this battle, the Russian Guard Cavalry had suffered heavy casualties at the hands of French cuirassiers (the Russians marched in columns by threes, and were caught by the French, who attacked in columns of squadrons), and only a desperate counterattack of the Life-Guard Cossack Regiment saved the situation.^{cccxli}

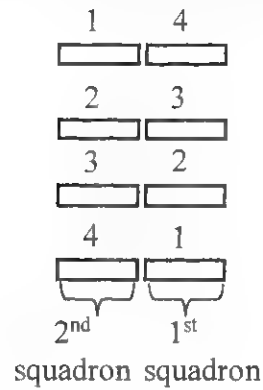
The most famous action of Russian cavalry in the 1814 campaign is the battle of Fère Champenoise (13/25 March), where around 13,000 allied horse, mainly Russian, first defeated the two French corps of marshals Marmont and Mortier, and then destroyed two newly formed French divisions of generals Pactod and Amey. One of the reasons for this success was good cooperation between the cavalry and horse artillery. The infantry only followed the cavalry, but took no part in the fighting.^{cccxlii} It should be noted, however, that Pactod and Amey not only had no cavalry with their divisions and that their troops were relatively raw, new recruits. In addition, in a last desperate attempt to escape, while totally surrounded by the Russian cavalry and with large numbers of allied infantry approaching, they launched a brigade-scale bayonet attack against the Russians and when it failed, they surrendered.

However, in the history of Russian cavalry, in the Napoleonic era one does not find such actions where they turned the tide of battle by a swift and massive stroke. A.I.Mikhailovskii-Danilevskii wrote that Tsar Alexander wrote him in 1815:

I don't like our way of using cavalry. We would send a squadron or two, a regiment at most, to attack [an enemy], and usually without any purpose. By such [uncoordinated] attacks, we would either manage to disorder the enemy a bit, who would quickly rally, or we would be, ourselves, overthrown, and having retreated, we would rally. On the contrary, I absolutely agree with the French. They concentrate all their cavalry at one point, and don't rush at the enemy at full gallop, as we do, but ride at a trot, slowly and in good order, and, charging at once with all their forces, throw the line of enemy troops into full disorder, and disrupt all their plans. I discussed this with Wellington several times, and he holds the same opinion. He wrote that, in no battle, the English cavalry, perfect in many respects, produced such an effect as poor French cavalry, which consisted of bad horses and of men who are poor riders.^{cccxliii}

In a military manual published after the Napoleonic Wars, it is written: "In a frontal attack of cavalry against cavalry, the side will get the upper hand, which rushes at the other in order and with higher speed. <...> Experience of the last campaigns has proved that the success of cavalry attacks comprised not only in fast attack of front against front. Quick concentration of superior forces against an enemy, a sudden and strong frontal attack, and, above all, incessant outflanking at one or both flanks of the enemy by columns, forces him to retreat, during which, he is pursued by fast charges from the front and threatened incessantly from the flanks by the advancing of columns. <...> Experience has proved that, in general, in battles, and especially in cavalry actions, he who has the last reserve will get the upper hand."^{cccxliv}

**Fig. 27. Two squadrons in column
formed on the center.**



The manual recommended a distance of 300-400 paces between the first and second cavalry line.^{cccxliv} There were to be wide intervals between the squadrons of the first line, the flank squadrons or divisions (two squadrons) were to be formed in columns, the squadrons of the second line were to be either in open squadron columns of platoons, in open division (two squadrons) columns formed on the center; the reserve was to be formed in regimental columns.^{cccxlvi}

Chapter 9

Cossacks.

The Cossacks were irregular cavalry organized in regiments of 16 officers and 500 men.^{cccxlvii} They were armed with lances longer than those of regular cavalry; sabers, and pistols. Some Cossacks armed themselves with carbines and even muskets. Cossack General A.K.Denisov wrote that, in the spring of 1807, three Cossack regiments (not more than 900 men in total) contained only 150 men armed with muskets.^{cccxlviii}

Polish General Kosciuszko wrote, in 1799, that the Cossacks were used as advance guards and sometimes marched up to 15 *lieues* [leagues, or approximately 90 miles] ahead of the army; that they easily traversed obstacles, such as woods, rivers, mountains, reconnoitered a terrain, found an enemy and informed the army commander about the enemy's position and numbers, all without being noticed by the enemy. They marched in skirmish order or in no order whatsoever. If some of them were attacked, others quickly arrived to help them. If they were attacked by strong enemy forces, they dispersed and retreated, but quickly came together again and tried to surround the enemy if he pursued them. Cossacks attacked with loud shrieks, without closing their ranks.^{cccxlix}

Langeron wrote that the Cossacks had a great ability to reconnoiter a terrain, keep it in mind, to search through it, to form a clear notion of it, to place their lines of communication, to estimate the numbers of an enemy, to navigate using the stars, etc. Their horses were small, but strong, agile, and tireless. The Cossacks were very dangerous to a fleeing enemy. They would harass an enemy as he marched, delay him and wear him out. It was impossible to get rid of them completely. If the enemy tried to attack them with a formed unit, that unit would never catch them; if the enemy was in disorder or in skirmish order, the Cossacks had a great superiority because of their skilful handling of their lances.^{cccl}

French cavalry officer de Brack considered the Cossacks the best light cavalry in Europe. He wrote that they protected the Russian Army well, wore out the enemy, attacked him frequently and were seldom attacked themselves. He attributes his opinions to the observations and comments of such authorities as Marshals Soult, Gérard, Clausel, Maison, and Generals Morand, Lallemant, Pajol, Colbert, and many others. He wrote that the Cossacks always fought in skirmish order (*en tirailleurs*), with only weak reserves in their rear.^{cccli} De Brack noted that the Cossacks always dispersed themselves in their retreat, and were very dangerous to those who pursued them too far.^{ccclii}

The Cossacks were not very useful in large scale-battles, because they were not trained to fight in close order formation and so were unable to withstand the frontal attacks of regular cavalry, but they were very useful in many other cases in campaigns. As General Bennigsen explained, they protected the Russian Army from sudden attacks and carried out the outpost service, thus saving the Russian regular cavalry from this heavy burden; they gathered information about an enemy at a long distance, captured enemy outposts and pickets, intercepted enemy messengers in his rear, and wore out the enemy, especially his cavalry.^{cccliii}

The usual formation of the Cossacks was called the *lava*. It was a single, extended rank, with the bravest men and those armed with carbines or muskets on the flanks, and with small reserves in column behind the flanks, and with the flanks bent slightly

forward. The Cossacks always tried to outflank an enemy.^{ccclv} The Cossacks attacked at full speed. If their attack was unsuccessful, they quickly retreated, gathered together, and immediately attacked again. If it was impossible to throw the enemy into confusion by such attacks, the Cossacks tried to distract the enemy's attention by apparently disordered movements, and attacked him again when he did not expect to be attacked.^{ccclv} Cossacks could be formed in two lines, as an eyewitness observed at Bautzen.^{ccclvi}

The Cossacks were dangerous enough for regular cavalry, especially if the cavalry was inexperienced, incautious, not accustomed to fighting Cossacks, and unsupported by other arms. Cossacks under the command of General M.I. Platov defeated several newly-formed regiments of Polish lancers at Mir (27 June/9 July 1812). General Paskevich wrote about the tactics used in this combat: "Platov had his own way of war. Having observed the enemy, he divided his troops into several parts, according to convenience. One [part] he hid on the right, another on the left, and the others stood in front of the enemy; i.e., sometimes rushing forward, then withdrawing, provoking [the enemy into pursuing], and 'guiding' [the enemy] into the flank ambush. Then, having charged the enemy in flank and rear, if he became confused, [they] pursued and exterminated him; if he stubbornly held out and it was impossible to knock him out by force, [they] retreated helter-skelter and again gathered together elsewhere."^{ccclvii}

Interesting descriptions of actions of Cossacks in 1813 written by a Prussian officer can be found in British Captain L.E. Nolan's book *Cavalry: Its History and Tactics*:

On the 19th of August, 1813, when the armistice had expired, the French troops began to push the allies back on Berlin and Potsdam. Colonel Bichalow received orders to make a reconnaissance in the direction of the Luchenwalde, with a regiment of Don Cossacks. These men had bivouacked on the Treboin road, and advanced through Scharfenbrück and Waltesdorf. The French pickets retired at our approach, and afforded us a full view of the fields to the north and east of the Luchenwalde. Presently, a large body of cavalry issued in haste from the town, and formed in our front in close column of squadrons; the skirmishers fell in on their flanks, and we had this heavy column only before us. The Cossacks could gain but little against so large a force, but as there was no great risk in assailing it, they were ordered forward. The French advanced at a trot, and, to prevent the Russians getting betwixt the squadrons, they closed up, and bore right down on the centre [sic] of our line, which naturally opened out; the Cossacks attacking the flank and rear of the column. The French, having no one in front to oppose them, halted, whilst their tormentors kept spearing the flank files, and firing into the mass, which soon got into complete confusion, and could undertake no evolution of any sort. The Cossacks, though they never attempted to disperse the mass by a dash at them, still, conscious of their superiority in riding, continued to shoot and spear them, executing partial charges when the opportunity offered. Meanwhile, the flank files of the French faced outwards, and unslung their carbines, and, thus formed in square, they kept up an irregular fusillade for about half an hour. The heads of French infantry columns were now seen advancing from Luchenwalde towards the scene of

strife, and as soon as their artillery opened fire, the column of heavy cavalry was released from its dangerous situation. Colonel Bichalow withdrew his troops by way of Scharfenbrück, without being pursued by a single Frenchman.^{ccclviii}

And another passage:

The French completed their movement whilst the Cossacks were forming up. They were formed in one line *en muraille*, with a small reserve in rear. The Cossacks fell on them, and were received with a discharge of carbines. The French did not draw swords. Their fire, at first, sent the Russians to the right about, and whilst they were re-forming, the enemy wheeled into column, and opened out, so as to get their intervals, and wheeled again into line. We expected they were about to charge, but their objective appears simply to have been to extend their line, and prevent their being outflanked, a common mode of attack with Cossacks. The arrangements being completed on both sides about the same time, the Cossacks were strictly admonished not to shrink from the enemy's fire, their officers receiving orders to cut down the first man that turned.

Several squadrons were told off to attack the enemy in flank and rear during the conflict. All these orders were steadily obeyed; they pressed in upon the French, and surrounded their squadrons; here I saw, myself, many of the French dragoons cut down or speared, after firing off their carbines, before they could draw their swords. The French steadily defended themselves at first, as well as cavalry standing still can do against such active adversaries, who swarmed about them on all sides; however, presently some of them turned, and their example was soon followed by the remaining squadrons. The reserve, instead of advancing to restore the fight, joined in the flight; in a short time, everyone was galloping towards Jacobstahl, and the entire plain was covered with scattered horsemen. Not one troop was to be seen in close order; it was a regular hunt; and most of those who were taken prisoner in it, had previously fallen off their horses. At last, we came upon a line of cuirassiers, in emerging from a wood, and their steady and imposing attitude brought us suddenly to a halt, without any word being given; we were quite satisfied with our victory, and turned back to Mühlenberg.^{ccclix}

Cossacks were able to defeat small, isolated infantry units. On 30 September/12 October 1812, Cossacks attacked a small square, killed forty men, and sixty were taken prisoners.^{ccclx} W. von Löwenstern wrote that, once in 1813, he attacked an infantry square with a Cossack regiment and captured 450 prisoners.^{ccclxi} The Cossacks were much afraid of enemy artillery: they feared losing their horses, because the horses were their personal property.^{ccclxii}

Chapter 10

Artillery

Ammunition and equipment.

As it has been written, the maximum range of old lead cannister was 100 *sazhen* or 300 paces (213.4 m) on dry, flat terrain.^{ccclxiii} In 1806 experiments were started to find a solution to this problem. A new cannister round, consisting of a tin cylinder filled with iron balls with a wooden plate at the bottom was devised, which had an increased range and effectiveness, but the results were still unsatisfactory. Then, an iron plate was tried instead of a wooden one, and tests carried out in 1807 showed that this cannister round was much more effective.^{ccclxiv} Captured French guns were also tested to determine the effectiveness of French cannister and it was found that a Russian 12pdr gun of "medium proportion" showed results comparable to the French 12pdr gun, and a Russian 12pdr gun of "smaller proportion" showed results comparable to the French 8pdr gun.^{ccclxv} Then, the size of the balls and the number of them in a round was changed, but, in general, the Russian cannister remained the same during 1810-14. There were two kinds of cannister in the Russian artillery: short range cannister consisted of many small balls; long range cannister consisted of a fewer number of larger balls. In each artillery company, there were ten short range cannister rounds and twenty long range ones per each cannon in caissons and boxes on limbers.^{ccclxvi}

The maximum range of the new cannister of a medium 12pdr gun was 400 *sazhen* (853.6 m); that of 6pdr gun was 200 *sazhen* (426.8 m).^{ccclxvii} On very rough terrain, the effectiveness of cannister was only one-third to a half of that obtained at level ground. Firing uphill, the efficiency of cannister was one-half that of fire on level ground; downhill – two-thirds.^{ccclxviii} On a level ground, the effect of artillery fire of heavy artillery reached its maximum at a range of 150 *sazhen* (320 m); that of light artillery – at a range of 100 *sazhen* (213 m).^{ccclxix}

The aiming devices used in Russian artillery in 1805-07 had significant disadvantages. Markevich's *dioptre* produced significant errors when an artillery piece was placed on uneven ground, because the system could not take into account the angle between the axis of the trunnions and the horizon. The *quadrant* used to aim an artillery piece at a range beyond the effective range of the *dioptre* was difficult to use: an artilleryman had to keep the *quadrant* inserted into the barrel during the aiming procedure. Markevich proposed a new *quadrant*, which had to be set up on a flat, horizontal surface, parallel to the axis of the barrel (starting from 1808, artillery pieces were produced with a platform at the cascable knob). In 1809, *Podpolkovnik* (Lieutenant-Colonel) Kabanov proposed a new aiming device, which was hung on a pin inserted into a special bracket screwed on the top of the breech. The device had a weight at the lower end, so it was always in vertical position, irrespective of the angle between the axis of the trunnions and the horizon. Kabanov's aiming device had two disadvantages: it was difficult to use in a strong wind, and it had to be removed before each shot and to be set up again after the shot. It was adopted in 1811, but not all artillery companies were supplied with it in 1812-14.^{ccclxx}

Chapter 11

Theory, Instructions and Training.

Khatov discussed artillery tactics in the first volume of his book, titled *General Study of Tactics*, published in 1807. After the 1807 campaign, Russian artillerists started to analyze the experience of the last campaigns to produce new tactical principles for artillery. Many theoretical works on artillery tactics appeared in 1808-10. The report of Major-General Sievers, mentioned in the previous chapter on artillery, contained some practical recommendations on artillery tactics. In 1808 the Artillery Committee started to publish the *Artillery Journal* in which, in 1809-10, a series of articles on artillery tactics written by Major-General I.G.Gogel, a member of the Committee, was published. In 1810 an interesting article was published in the *Military Journal*; D.A.Stolypin, a *porutchik* (lieutenant) of the Guard Horse Artillery, presented his views on artillery tactics.^{ccclxxi} There are no significant contradictions between the views of the authors; in fact, their views concur on most points or supplement one another on some other issues (many of their ideas were borrowed from the works of Guibert and du Teil). Their most important theses were:

Artillery had to be placed according to the disposition of the troops and to the purpose of a battle. The artillery pieces were to be placed at positions where they could act with the most advantage.^{ccclxxii} Artillery had to try to fire at enemy troops obliquely, to create zones of crossfire, or to enfilade them.^{ccclxxiii}

Open terrain and hard ground was required in front of the guns, as it gave a wide field of vision and good ricochets. Positions on heights are favorable (a wider field of vision and enemy fire is less dangerous), but one should not place his guns on very high positions, because it would be impossible to fire at the enemy when he is close to the artillery position.^{ccclxxiv} Stolypin added that enemy skirmishers are dangerous to artillery, so one was to avoid placing artillery in positions with local cover favorable to skirmishers in front of it.^{ccclxxv}

The main purpose of artillery was to defend other troops.^{ccclxxvi} Khatov and Gogel even compared artillery with bastions; infantry and cavalry with curtains,^{ccclxxvii} as Davydov did in his account of the battle of Eylau. This is in marked contrast with Napoleon's practice of using artillery offensively and as the principal weapon for the destruction of the enemy's army, preparing the way for the final blow that would decide the battle. In addition, one had to coordinate the movements of artillery with the movements of other troops. It was important to occupy tactically important positions at the right moment; to do this too early is to reveal one's intentions to the enemy.^{ccclxxviii}

Khatov believed that light and horse artillery should be placed at various points and should be held ready to quickly reinforce troops attacked by the enemy.^{ccclxxix} Gogel and Stolypin recommended placing horse artillery in reserve so it could quickly be sent where it was needed.^{ccclxxx} It must be said that Sievers was probably the first who wrote this in his proposals on the improvement of artillery wrote, in 1800 (but published only in 1811).^{ccclxxxi}

Artillery was not to fire when the enemy was at great distances, even if it could be hit. Khatov wrote that the effective range of 12pdr gun is 500 *sazhen* (1067 m); 6pdr gun – 450 *sazhen* (960.3 m); ½ *pud* unicorn – 600 *sazhen* (1280.4 m); 12pdr (¼ *pud*)

unicorn – 500 *sazhen*. He wrote that at a long range artillery had to fire slowly, carefully taking aim, but that it should increase its rate of fire as the enemy came closer (he added that generals often ordered artillery to fire when the enemy was too far and that friendly troops were discontented when artillery fired slowly).^{ccclxxxii} Gogel believed that, at a range of more than 500 *sazhen*, artillery fire was ineffective; only a few shots would hit the enemy, and the enemy would lose his fear of the artillery. Nevertheless, in some cases one might fire at such a range, for example, when the enemy was marching in large and thick columns over terrain favorable to ricochets, or the enemy were moving out of a defile, or when large numbers of enemy cavalry was concentrated at one place.^{ccclxxxiii} Stolypin argued that, at a range of 400 *sazhen* (854 m), artillery fire was still relatively ineffective; at 200-300 (427-640 m), effective enough, and at less than 200 *sazhen*, it was devastating, and so he recommended at the first range the rate of fire be slow, carefully taking aim; at the second range, faster, and at the third, as rapidly as possible.^{ccclxxxiv}

If a battery was taking heavy casualties from enemy fire, the battery commander was to move his battery. One was to avoid a firefight with well placed and more numerous enemy artillery.^{ccclxxxv} If light artillery had to fight against enemy heavy artillery, it was to advance to within 150-200 *sazhen* (320-427 m) from the enemy pieces and to try to bring converging fire on the enemy artillery.^{ccclxxxvi}

One was to hide his pieces until the moment when it is necessary to act. Stolypin recommended using infantry or cavalry to screen artillery. Gogel advised that artillery officers study the terrain where the battle would take place and to use terrain features to hide the artillery.^{ccclxxxvii}

Khatov and Sievers thought it would be better to have many small batteries instead of a few large ones, because a large battery is a good target for enemy artillery, while many small batteries would be able to enfilade enemy troops better. Sievers adds that large batteries were useful only when it was necessary to repulse a strong enemy assault.^{ccclxxxviii} Stolypin wrote that a large battery should not to fire at enemy artillery; that it would be better to scatter the artillery pieces, and to concentrate their fire to keep enemy artillery under a crossfire. To achieve a decisive effect, it was thought that a large battery should fire at enemy infantry and cavalry, concentrating its fire at the target most important at any given moment.^{ccclxxxix} Gogel also stressed the importance of the concentration of fire and cooperation between batteries.^{cccxc}

Artillery was to support the actions of friendly troops by firing at enemy artillery and cavalry, and to prevent the enemy from achieving his goals by firing at his advancing columns. When friendly cavalry attacked, supporting artillery was to fire at enemy artillery so as to reduce its effect on the attacking Russian cavalry, and if friendly cavalry was routed, the artillery was to fire at enemy cavalry.^{cccxi}

Khatov held the opinion that artillery should not fire at enemy artillery, in spite of a well known fact that it was inclined to do that, but it should fire at enemy troops whenever possible. Artillery might fire at enemy artillery only if there was a no more important target, or when enemy artillery caused too much harm to friendly troops.^{cccxcii} Sievers wrote that Russian artillerists often fired at enemy batteries in 1806-07 and he believed that counterbattery fire was appropriate only in the following cases: 1) when an enemy battery prevented friendly infantry or cavalry from occupying a desired position; 2) when an enemy battery prevented passage through a defile; 3) when one intended to attack an enemy battery, then artillery had to fire on the enemy battery to divert its

attention from the attacking friendly troops; and 4) when making a breach in an enemy fortification. In all other cases, artillery was to fire at enemy lines and columns, trying to enfilade them or to fire obliquely.^{cccxciii} Both Stolypin and Gogel wrote, that in general, artillery was to avoid counterbattery fire, and that, when friendly troops were on the defensive, artillery should concentrate its fire on enemy infantry and cavalry, but when friendly troops were on the offensive, artillery should engage in counter battery fire (Gogel added that, when artillery advanced with the troops to within cannister range of the enemy, it should redirect its fire to enemy infantry and cavalry).^{cccxciv}

When firing on deep enemy columns, it was always better to fire round shot and cannister was preferable against enemy infantry in line and attacking enemy cavalry.^{cccxcv} and even in these cases, cannister was not to be used at ranges of more than 200 *sazhen* (427 m). A range from 50 to 150 *sazhen* (107-320 m) was the most effective cannister range.^{cccxcvi}

The artillery officer was to observe where his shots fell and to keep a steady and continuous but not hasty fire, to preserve ammunition. When the target was an enemy column, round shot was to be fired rapidly until it deployed into line; at which time, it would change over to cannister as the enemy infantry closed.^{cccxcvii}

If it was impossible to stop the enemy, artillery was to retreat slowly, keeping the enemy at bay. Batteries were to retreat one-by-one, covering each other's retreat (to have a possibility to withdraw in order, one was to place covering batteries in a good position in the rear beforehand).^{cccxcviii} If this was impossible, one was to fire cannister to the last moment and then to abandon the pieces to save the men. The last shot, fired at point blank range, was the most murderous.^{cccxcix}

Sievers advised that not more than one caisson be kept per one artillery piece at a battery in a large-scale battle; that all other caissons be kept some distance back, and that caissons be rotated forward when necessary.^{cd} He recommended that artillery keep pieces loaded with cannister during a night, with a string fastened to it so as to be able to unload the piece when daybreak arrived.^{cdi} He also considered it very important to train the artillerists to transfer a barrel from one carriage to another, and proposed a following method: the tail of a carriage was to be lifted until the muzzle touched the ground, and then, keeping the barrel in the vertical position, unfasten the cap squares, move the carriage aside, place another carriage in its place in the same position, and then refasten the cap squares. Sievers wrote that he experimented with this method and saw how a 6pdr gun barrel was shifted from one carriage to another in a half a minute; a 12pdr barrel and a unicorn one, in two minutes.^{cdii}

Gogel recommended that field fortifications be built for the artillery when on the defensive.^{cdiii} He wrote that one should not place artillery in isolated fortifications in front of the main line of the troops.^{cdiv} If an enemy enveloped a fortification with his artillery batteries, it would be better to withdraw artillery from it and to fire at the enemy from flank batteries.^{cdv} A fortification for artillery was to have one or two reliable exits to allow the artillery to retreat.^{cdvi} When firing at an enemy fortification, artillery was to enfilade its faces and to throw bombs into the fortification in order to destroy enemy pieces, not the fortification.^{cdvii}

The works of these authors had a great influence on the views of Russian artillery officers, especially Stolypin's article. Several responses to Stolypin's article were published in the *Military Journal*, as other officers developed some particular issues

further. The statement that horse artillery must be placed in reserve quickly became a commonplace in the Russian military literature.^{cdviii} Rokhmanov, a captain of the General Staff, and Velyaminov, an officer of the Guard Artillery, referred to the action of horse artillery at Eylau, under the command of A.P.Ermolov and A.I.Kutaisov as an example of a successful maneuver of horse artillery.^{cdix} Velyaminov mentioned the actions of Austrian artillery at Lodi (1796) as an example of an error in the use of round shot and cannister: the Austrians fired cannister at the French column attacking over the bridge, while it would have been more effective to fire round shot along it.^{cdx} He also wrote that one could not over stress Stolypin's recommendation to fire at enemy artillery in offensive actions, and that even on the offensive, artillery should fire mainly at enemy troops^{cdxi} (it must be said that Stolypin did not say that, in the offensive, artillery was to fire only at enemy artillery, but some readers probably misinterpreted his recommendation in this way). Velyaminov also pointed out that the main secret of the effectiveness of the French artillery was the ability of the French to concentrate their artillery pieces when and where it was needed.^{cdxii} Another experienced artillery officer wrote that, to scatter artillery pieces and, at the same time, to concentrate their fire at one target, as Stolypin recommended, would be effective only in the case of a single, large, and immobile target; otherwise, it would be impossible to coordinate the fire of the scattered pieces.^{cdxiii} He also advised keeping as few caissons near the battery as possible, writing that he sometimes kept six or sometimes as few as three caissons forward with a battery of twelve cannon.^{cdxiv}

Many ideas proposed in all these works found their place in an instruction titled *General Rules for Artillery in a Field Battle*, written by Major-General A.I.Kutaisov, commander of the artillery of the 1st Western Army in 1812, and are worth quoting as a whole:

Without speaking about the quality of our pieces and without getting into their details, which is already known by any conscientious artillerist. I will speak about actions of artillery in battle in general, and in this sense, it must be used according to the following rules:

1. In a field battle, fire at a range of more than 500 *sazhen* is ineffective; at 300 it is effective enough; at 200 and 100 it is murderous; at the three latter ranges our new cannister can be used. Consequently, when an enemy is at the first range, one should fire slowly, to have enough time to aim the piece more accurately, and to make his [the enemy's] movements difficult; at the second range, one is to fire faster, to stop or, at least, to slow down his [the enemy's] approach, and towards this end, to hit as fast as possible, to overthrow or to destroy him [the enemy].

2. At the beginning of a battle, one is to conceal the strength of his artillery, but to reinforce it during the action; thus the point of your attack will be concealed, and if he is attacking, he would meet the artillery there, where he might not expect it.

3. When the real intention of the enemy is not yet observed, then batteries must consist of a small number of pieces, and having been scattered at various places, you present a small target, have more means to do harm to him by oblique fire and crossfire, and to make his actions difficult.

4. Batteries of larger numbers of pieces should be formed, in cases when it is necessary to make a breach in the enemy line, or to stop his strong assault at some point, or when it is necessary to dislodge him from some position.

5. One should avoid placing batteries on very high and steep hills; to the contrary, batteries of unicorns can be placed with great advantage behind low hills, which would cover them, because their fire is an indirect one, excluding cannister.

6. It may be taken, as a rule almost without exception, that, when we intend to attack, most of our artillery must fire at the enemy artillery; when we are attacked, most of our artillery must fire at enemy cavalry and infantry.

7. In addition to that, it is necessary to fire at [enemy] batteries, when they prevent [us] to taking some position or cause [us] harm in defiles.

8. [When firing on] enemy columns, one is to fire cannonballs with full [powder] charge, and grenades, sometimes with decreased powder charges, in order to get them to ricochet and to explode in the column itself; cannister is to be fired at columns only when he is at a very close range, because the effect of cannonballs is less murderous then.

9. [When firing at an enemy's] line, which is at an advantageous range from you, cannister is principally to be fired; if one fires cannonballs and explosive shell one is to place his batteries so as to fire along the line or obliquely, at least.

10. During a strong [enemy] assault, when one intends to retreat, artillery covering the retreat must be deployed in two lines, so that the first line can go through the second one, which is to be ready to meet the enemy.

11. In any case, artillery must cover the movements of [friendly] troops, and mutually the troops cover it; therefore, its commander, having reconnoitered terrain and having been informed about the intentions [of the troops], places it, in accordance with the terrain, so as to support the actions [of the troops] with its fire.

12. Its main placement must be on the flanks of the lines, in the intervals [between infantry formations], and in reserve; this placement cannot prevent it from moving according to terrain and movements of enemy troops, because it is very dangerous to stay at the same position for a long time during an attack.

13. The artillery reserve, being placed behind the second or third line, must be formed principally of horse artillery, which can rush to various places with great speed because of its swiftness and lightness, and heavy companies can position some part of their men at horses and limbers for faster movement.²

14. The commander of the reserve artillery, seeing the necessity to send reinforcements somewhere, sends batteries with the maximum speed

² He probably means that the caissons would be held back where they would be less likely to be struck and detonated while the smaller portions; i.e., targets, of the battery, the gun carriages and the gunners, would be deployed forward to speed up movement, the foot gunners being the slowest part of the battery.

possible, according to the order from higher commanders or at his discretion, because his activity may turn the course of a battle.

15. If terrain permits, one is to place batteries so that the axle of one piece is not closer than 15 paces from the axle of another one; thus, movements and servicing [of the piece] will be easier, and enemy fire will not be so dangerous.

16. During an action, foot artillery need not keep at the battery more than one caisson per one piece. All other [caissons] are to be left behind the lines [of the troops]. Horse artillery may keep even fewer caissons with it, observing only that the limbers are always filled with ammunition.

17. Men must be trained to shift barrels quickly and neatly from one carriage to another.

18. At outposts during night, pieces must always be loaded with short-range cannister, with a string fastened to it in order to be able to unload the piece when day comes, and there is no need [for the defensive measure].

19. Each battery commander will take care to have spare horses and spare harness for an action; one is to have usual simple breech-bands.

20. When a march over muddy or marshy terrain is expected, artillerists must have fascines, which can be fastened to the sides of caissons and pieces, trying to keep them dry.

21. In conclusion, I say that there is nothing more shameful to an army, than unnecessary waste of ammunition, which one must try to use so that each shot would cause the maximum damage to an enemy, keeping in mind how its production and transportation is difficult.^{cdxv}

As has been said, in 1800-06, there was no military educational establishment in Russia that provided any special artillery education, except a class at the Guard Artillery. In 1806 a training company was organized for the rank and file (210 men) in the Guard Artillery and, in 1811, an officer class (48 men) was added to it. In 1812 another artillery training company of the same strength was organized. Each company had four $\frac{1}{4}$ *pud* unicorns and four 6pdr guns. Ammunition was given at a ratio of six live rounds (two with explosive shell, four with balls) and additional gunpowder for twelve shots per man per year. The rank and file, who completed the training program in the companies were promoted to the rank of NCO; the men from officer classes who had passed exams in the Artillery Committee became officers.^{cdxvi}

As in the previous period, artillerists were mainly trained in their companies. N.E.Mitarevskii, a junior officer in the 12th Light Artillery Company in 1812 (the 7th Artillery Brigade attached to the 7th Infantry Division, 6th Infantry Corps), describes, in his memoirs, how, in the beginning of the 1812 campaign, General V.G.Kostenetskii, commander of the artillery of the 6th Infantry Corps, taught artillerists how to fire cannister at an advancing enemy, especially cavalry, at a close range. He wrote, "In this case, one does not need to aim using a *dioptre* and for rapid fire, one need only look from behind [the barrel] and to aim along it."^{cdxvii}

Chapter 12

Organization.

During and after the campaigns of 1805-07, there was a hot debate over whether regimental artillery was useful or not. Stolypin and Velyaminov considered the regimental artillery useless,^{cdxviii} but an experienced officer, writing under the pseudonym Major Prostov, held the opposite opinion.^{cdxix} Major-General Gogel presented a list of all arguments in favor of the regimental artillery: 1.) Infantry regiments competed in keeping their artillery pieces in good condition, 2.) they took care of them as well as they did their colors, and 3.) they fought more bravely when supported by their artillery.^{cdxx} Then, he enumerated arguments against the regimental artillery: 1.) Terrain favorable to infantry is not always favorable to artillery, 2.) artillery pieces placed along the front of infantry could hinder the movement of the troops, 3.) infantry regiments were not able to train artillerists to the same degree of skill as artillery brigades, 4.) regimental commanders considered their pieces good if the paint on the carriages was in good condition, 5.) the men were picked for their height rather than their skill in working the pieces and skills of men, 6.) rapidity of fire was seen as better than accuracy, 7.) the attachment of a regiment to its artillery pieces seemed to be not very strong, while the contempt for the pieces of other regiments was well known, 8.) infantry officers ordered the regimental artillery to fire at too great a range and withdrew it before it would become effective because they were afraid they might lose the guns.^{cdxxi} Gogel himself believed it would be better to form all artillery into brigades rather than to distribute light artillery to infantry regiments.

Some authors proposed creating special units of infantry and cavalry, which would serve as a constant support to both the foot and horse artillery. It was proposed to assign groups of 100 or 150 men per artillery company and many others supported this idea.^{cdxxii} The men in these units would also be trained to serve the artillery pieces, so as to be able to replace casualties among artillerists, if necessary. This proposal was not put into effect to its fullest extent, but in infantry regiments in each company ten men and two NCOs were trained to serve artillery pieces^{cdxxiii} and were sent to artillery companies to replace casualties when necessary. For example, N.Lyubentsov, an officer in the 33rd Light Artillery Company (the 17th Artillery Brigade attached to the 17th Infantry Division, 2nd Infantry Corps), writes that, at Borodino, his company replaced casualties with men drawn from the Brestskii and Ryazanskii Infantry Regiments.^{cdxxiv} In some jager regiments a few dozen men were also trained to serve artillery pieces. M.M.Petrov, commander of the first battalion of the 1st Jager Regiment, writes that, in this regiment, forty men were trained to handle artillery pieces before the 1812 campaign, and at Borodino they were sent to replace casualties in the 23rd Heavy Artillery Company of Colonel L.L.Gulevich.^{cdxxv}

During the previous period, during peacetime, the artillery was organized in regiments and battalions. Brigades were only formed before a campaign and often consisted of companies drawn from different regiments. Before the 1812 campaign, the organization of artillery brigades was changed. The artillery brigade had become a permanent unit, containing men, horses, artillery pieces, caissons, and other vehicles and existed in both peacetime and time of war. Every artillery brigade assigned to an infantry

division consisted of one heavy and two light artillery companies. The commander of the heavy artillery company was usually the commander of a whole brigade. The organization of artillery companies remained the same as in the previous period. One artillery brigade was attached to each infantry division. There were also four reserve artillery brigades of two heavy and three or four horse companies each.^{cdxxvi}

In March 1812, there were five companies of Guard Artillery, 49 companies of heavy artillery, 54 companies of light artillery, 22 horse artillery companies, two pioneer regiments, and 24 pontoon companies.^{cdxxvii}

Chapter 13

Formations and Tactics.

According to the foot artillery drill regulations, printed in 1824, when a heavy foot artillery company was placed in position, its artillery pieces were put in the following order, from right to left: two unicorns, four medium 12pdr guns, four small 12pdr guns, and two unicorns. Light artillery pieces were placed in the same way; i.e., two unicorns, eight 6pdr guns, two unicorns.^{cdxxviii} Some passages from memoirs of Russian artillery officers show that, in 1812-14, the artillery pieces were put in the same order. For example, A.S.Norov, a *praporshchik* (ensign) in the 2nd Guard Light Artillery Company in 1812, wrote that, at Borodino, he commanded the two left flank pieces of the company. They fired at enemy batteries; enemy caissons exploded often, and each time his men said "it is [done] by our unicorn!"^{cdxxix}

Theorists recommended that the interval between light pieces be equal to six or eight paces, with ten paces between heavy pieces.^{cdxxx} Ermolov introduced a new method of deployment when he was commander of the Guard Artillery: a company formed a column two pieces wide and deployed in the direction of march, taking intervals of not less than twenty paces, and upon reaching their assigned positions, unlimbered and began to fire without waiting for the others.^{cdxxxi} The interval of twenty paces was probably considered too large, and Major-General Kutaisov, in his *General Rules for Artillery in a Field Battle* recommended an interval of fifteen paces between the ends of the axles of gun carriages.^{cdxxxii}

After the Napoleonic Wars these intervals were still thought appropriate. As it is written in a book for young officers published in 1821, the interval between artillery pieces was to be from twelve to twenty paces; the limbers were placed at a distance of from thirty to fifty paces behind the pieces.^{cdxxxiii} A.I.Markevich, a member of the Artillery Committee and designer of the *dioptré*, in the second volume of his book, *A Manual on the Art of Artillery*, published in 1824, wrote that artillery pieces should never be placed closer than three *sazhen* (6.4 m) between the barrels, because it was the least interval, which allowed a limber to pass between two pieces. He recommended placing the pieces so that any one of them could be turned to any direction or even turned around with the prolonge, which required sixteen or seventeen paces for light guns and twenty or twenty one for heavy guns (he probably also means the distance between the barrels, since, in artillery drill regulations published in the same year, the interval of twenty-two paces between barrels of heavy pieces and eighteen paces between barrels of light pieces was recommended).^{cdxxxiv} He wrote that limbers were to be placed not closer than thirty paces behind the guns; the caissons of light pieces at thirty paces behind the limbers, and the caissons of heavy guns, which had no ammunition boxes in the limbers, fifteen paces behind the limbers. Markevich also recommended to keep not more than one caisson per one piece at a battery, and said that one caisson per two pieces would be even better. All other caissons were to be placed 150-200 *sazhen* behind, and not close one to another, so that an explosion of one caisson would not propagate to the others, and that one should use terrain features to shelter the limbers and caissons.^{cdxxxv} In fortifications, the interval between artillery pieces was to be equal to three *sazhen* (6.4 m).^{cdxxxvi}

Artillery pieces in battery usually fired one-by-one in turn, but, sometimes, other methods of firing were used. Lyubenkov mentions that, at Borodino, when they (the 33rd Light Artillery Company) were attacked by enemy infantry, they fired volleys by half-batteries at an enemy column, as he says “to inflict a decisive defeat and to slow it down on its march.”^{cdxxxvii} An eyewitness wrote that, at Bautzen, artillery fired in the reverse of this process: volleys first, then piece by piece, then battle fire.^{cdxxxviii}

Lyubenkov describes another interesting action of his company at Borodino: “Our colonel [I.I.Dieterichs, commander of the 17th Artillery Brigade], wishing to stop the fire of an enemy battery, which snatched files from our [infantry] columns, ordered our battery to charge [advance against the offending battery]; we rushed [forward], prolonging [our pieces], rode up to cannister range, fired a volley of round shot, and then fired cannister, destroyed the [enemy] battery, silenced it and [it] left its place.”^{cdxxxix} As can be seen from this and other episodes, on the battlefield, when it was necessary to move, light artillery was usually prolonged rather than limbered. In later manuals, this was the recommended method.^{cdxl} It also can be seen that the commander of the artillery brigade controlled all the companies of his brigade in the battle.

Heavy artillery was placed in batteries in favorable positions. The batteries were usually supported by infantry, although, in his order before the battle of Borodino, Barclay de Tolly prescribed: “One must not keep special supporting units placed near to batteries, but only establish these as the enemy approaches; otherwise, two targets are presented simultaneously to the enemy; the battery itself and its support.”^{cdxli} Heavy artillery was sometimes used in groups of four pieces to support infantry.^{cdxlii}

Light artillery was usually attached to infantry brigades; one artillery company per brigade.^{cdxliii} and, if an infantry brigade was in the second line, its attached artillery company was usually also in the second line in the beginning of an action.^{cdxliv} In general, in 1812, light artillery usually still played the role of direct support to infantry. Light artillery companies took positions on the flanks and in the intervals between infantry regiments, not more than 50 *sazhen* (106.7 m) forward of the front line of the infantry. Sometimes they were divided into half-companies and sometimes, two or four pieces were separated from their company.^{cdxlv} If a few artillery pieces were sent to take an isolated position far from other troops, they were supported by infantry, usually at a ratio of one infantry platoon per one artillery platoon (two artillery pieces).^{cdxlvi} Two or four light artillery pieces could be sent to support skirmishers (that was usually done in advance and rearguards). They fired cannister at enemy skirmishers and cannonballs and explosive shell at their reserves, which were formed bodies of infantry and better targets for shot and shell.^{cdxlvii} After the battle of Borodino, Kutuzov ordered (6/18 September 1812) that each infantry battalion, except jagers, had to have two light artillery pieces permanently attached to it; i.e., regimental artillery was reintroduced.^{cdxlviii}

As is stated in military manuals published after the Napoleonic Wars, artillery was usually placed from 50 to 100 paces in front of the infantry and from 20 to 50 to the flank. Artillery supporting advancing infantry was to move 100 paces forward and to fire at enemy artillery. When advancing, friendly infantry approached the artillery, the artillery was to move forward 100-150 paces and to fire, repeating the process until 400-500 paces from the enemy, when it was to stop and fire cannister.^{cdxlix}

In 1813, after Kutusov had died and command of the army changed, the light artillery was again separated from the infantry. The light artillery became much more

independent in its actions. Its officers had gained significant experience during the previous campaigns and were able to choose good positions, and even to influence the course of a large-scale battle. I.T.Radozhitskii, an officer in the 3rd Light Artillery Company (the 11th Artillery Brigade), describes actions of his company at the battle of Bautzen:

General Blücher, seeing our right flank in danger and wishing to draw the enemy forces from Barclay de Tolly, ordered our artillery company to take a position to the left of the village of Preititz, facing an enemy battery standing to the right of [the village of] Gleina. There were, between the heights of Kreckwitz and [the village of] Preititz, only one Prussian cavalry brigade and two howitzers of horse artillery. *Podpolkovnik* (Lieutenant-Colonel) Timofeyev, who was in command of our company, ordered me to choose a position for our battery. ...

I managed to find an advantageous position to place our company. I led it and placed it at a small rise with a marshy valley in front of it, that protected us from any enemy cavalry attack. There was a wood to the left of the valley and the village of Malschwitz was behind it. Just as our twelve pieces took the position, a caisson in the enemy battery exploded from our second shot. In a few minutes, we silenced eight French guns and forced them to draw back with our successful fire. Then our artillerymen shouted 'ura', and I [moved] with four pieces from the left flank of our battery down from the rise to the wood. Our jagers also ran there. General Blücher, having seen the successful actions of our battery, sent his ADC to our *Podpolkovnik* with acknowledgements. Encouraged by such attention from the foreign general, we started to fire obliquely at enemy columns assaulting Barclay de Tolly's position. Then Marshal Ney, worried by the movements and actions of our battery, and fearing that our troops, after the taking of the wood, would be able to reach the village of Malschwitz and outflank him, sent his infantry there. They rushed into the woods at a run, dodging and falling from our shot and shell; also, he sent cavalry against us, but the marshy valley prevented them from attacking our battery. Then, he placed a strong battery, and hot cannonade started again. These actions of our company substantially assisted Barclay de Tolly, because Marshal Ney sent a large part of his infantry to occupy the village of Malschwitz and the woods near it. The French battery pelted us with cannonballs, but they did little damage, because I had placed our pieces behind the hillock that covered them up to a half of their height, and so they did not present a large target, excluding my four pieces that had moved forward. During the whole affair, we lost six men killed or mortally wounded. In that moment, General of Artillery Rezvoi rode up to our battery and praised our actions; Prussian officers often rode up to us and praised [us]; Blücher sent his ADC to give his thanks to our *Podpolkovnik* a second time, and ordered him to include his officers on a commendation list after the battle.^{cdl}

That was the action mentioned by famous military theorist Jomini, chief of staff of Marshal Ney: "The fine movement of Ney on Preititz at Bautzen was neutralized by a few pieces of Kleist's artillery, which took his columns in flank, checked them, and decided the marshal to deviate from the excellent direction he was pursuing. A few pieces of light artillery, thrown at all hazards upon the enemy's flank, may produce most important results ..." ^{cdli}

When friendly infantry was threatened by strong enemy cavalry, artillery was usually placed between the infantry squares. At Krasnoi (2/14 August 1812) General Neverovskii placed his artillery pieces at the flank of his infantry division and supported them with the Tchernigovskii Dragoon Regiment, but the dragoons were overthrown by the more numerous French cavalry. As a result, five pieces were captured by the French, while five more escaped with their crews who fled with the dragoons, and Neverovskii was left without either artillery and cavalry. Neverovskii admitted later that it would have been better if he had placed guns between the infantry columns. ^{cdlii} Major-General A. Pisarev wrote that, at Leipzig (4/16 October 1813) the Kievskii Grenadier Regiment supported a battery consisting of six pieces of the Guard Heavy Artillery and six pieces of the 13th Light Company. When French cavalry attacked the battery, the regiment formed two squares on both flanks of this battery. ^{cdliii} At Etoges and Champeaubert (1/13 February 1814), when Russian infantry and artillery were forced to retreat under threat of a large force of French cavalry, the artillery was placed between infantry squares. ^{cdliv} In tactical manuals published after the Napoleonic Wars, it was also directed that the artillery be placed between infantry squares. It was considered undesirable to place artillery pieces at the corners of squares (and limbers and caissons inside them), since it hindered the movements of infantry and could cause disorder. ^{cdlv} Nevertheless, when fighting the Turks, a part of artillery was still placed at the corners of the squares, usually one gun at each corner, ^{cdlvi} and the rest was placed between squares some distance back from the front line. ^{cdlvii}

Horse artillery was used in advance and rearguards, to support cavalry, and as reserve artillery. In rearguard actions, horse artillery batteries retreated in echelons: one battery occupied a favorable position in the rear beforehand and covered by fire the retreat of another battery. ^{cdlviii} Each cavalry corps had a horse artillery company attached to it. Major-General K.F. Löwenstern, commander of the artillery of the 2nd Army, wrote in his report on the battle of Borodino: "the horse artillery ... supported attacks of our cavalry, checked the movements of enemy cavalry with cannister fire, taking advantageous positions with its characteristic swiftness." ^{cdlix} Barclay de Tolly wrote, in his *General Instructions on the Order of the Troops on the March, in Camps, and in Very Battles* (end of July/beginning of August 1813) that, in the beginning of an action, horse artillery was to be placed in the first line, but when the first line attacked the enemy, the horse artillery should remain with the second line. If the first line turned the enemy to flight, the artillery was to join it and fire at the fleeing enemy. If the enemy overthrew the first line, the artillery was to greet the enemy with fire, being covered by the second line. ^{cdlx}

A considerable number of horse artillery was placed in reserve. At Borodino, five line horse companies were placed somewhere behind the 7th Infantry Corps and there were two Guard horse batteries in reserve. ^{cdlxi} When Kutuzov sent Ermolov to the 2nd Army "to put artillery in good order", Ermolov asked Kutaisov to give him three line

horse companies. He probably planned to do something similar to what he did at Eylau and these companies helped him to retake the Raevskii Battery.^{cdlxii} At Leipzig, almost all Russian horse artillery was initially held in reserve. On 4/16 October, several horse companies, including the two Guard horse companies, took an active part in repulsing a large scale enemy attack.^{cdlxiii}

At Borodino, the 1st Guard Horse Artillery Company marched in columns of two pieces (column of platoons formed on the right) from the Guard Corps standing in reserve to the Bagration *flèches*, when Captain R.I.Zakharov, company commander, noticed enemy infantry columns in the brush to the left of the *flèches*. He informed the commander of the Guard Horse Artillery, Colonel P.A.Kozen, about it. Kozen ordered Zakharov to stop the enemy with cannister and rode to the cuirassiers, who followed the company some distance back. Zakharov deployed the company to the left, rushed forward at a gallop without any support, stopped at close cannister range and opened fire on the enemy as they moved out of the brush into a clearing. The enemy columns sustained heavy losses; they were stopped and disordered. At that moment, the Russian cuirassiers arrived, attacked, and scattered the enemy infantry back into the brush. Some time later, the 1st Guard Horse Artillery Company engaged thirty French artillery pieces. The company was deployed with intervals up to fifty paces between its guns, with the guns concealed, as much as possible, by the terrain, and so the company had lost no guns during the two hours of the firefight.^{cdlxiv}

Officers of horse artillery sometimes used their men as cavalry (armament and equipment of the Russian horse artillerymen was identical to that of dragoons, except muskets).^{cdlxv} At Krasnoi (5/17 November 1812) Colonel A.P.Nikitin, commander of the 7th Horse Artillery Company, fired cannister at the enemy retreating into the town, then mounted his men and charged, capturing two artillery pieces and around 300 prisoners.^{cdlxvi} At Dennewitz (25 August/6 September 1813) artillerymen of I.K.Arnoldi's 13th Horse Artillery Company charged and captured two enemy artillery pieces.^{cdlxvii} At Etoges and Champeaubert, *Podpolkovnik* (Lieutenant-Colonel) Z.S.Shusherin, commander of the 8th Horse Artillery Company, broke through enemy cavalry with his men and saved his pieces.^{cdlxviii} Radozhitskii writes that, at the same battle, one Read, an officer in Shusherin's company, leading some artillerymen, cut his way through French infantry and led Prussian General Blücher to Etoges.^{cdlxix}

In 1812 the attitude towards the loss of artillery pieces changed completely. Not long before the battle of Borodino, Tsar Alexander issued an order to Kutuzov (24 August/5 September 1812, received 30 August/11 September) in which he prescribed: "one must not include in the list of commendations the commanders of artillery companies who would lose their pieces in a battle."^{cdlxx} However, in the evening before the battle of Borodino, Major-General Kutaisov sent a brief note to the artillery commanders:

One is to tell, to all companies from me, that they are not to leave their positions until the enemy is sitting on their guns; to say to all commanders and other officers that only by engaging at the closest cannister range can they achieve the situation where we will cede not one foot of our position to the enemy. Artillery must sacrifice itself. Even if you are taken with your guns, fire the last cannister shot at point-blank range. A battery that is

captured under such circumstances, will have inflicted casualties on the enemy, which will be enough to compensate the loss of the pieces.^{cdlxxi}

Mitarevskii, a junior officer in the 12th Light Artillery Company in 1812 (the 7th Artillery Brigade attached to the 7th Infantry Division, 6th Infantry Corps), writes that artillery officers of the 2nd Army told him that, at Borodino, Bagration ordered that, if the French came very close, the artillerymen were to take the limbers and caissons back, to fire cannister at point blank range, and then to escape with the tools and limbers, leaving the pieces. They went on to say that they did as he ordered. The French tried to block the touchholes of the guns with earth, sticks, or straw. After a counterattack, the artillerists returned to their pieces, cleared the touchholes, and fired into the backs of the retreating enemy. Mitarevskii adds: "In 1812, after Prince Bagration's orders at Borodino, the loss of guns was no longer considered as a reproach to a battery commander. Instead, the supporting units were held accountable. If a battery commander wished to safely escape an assault of [enemy] infantry or cavalry, it was necessary to limber the battery when the enemy is at a range of one hundred *sazhen* [213.4 m] from them, especially if there are considerable casualties among men and horses [of the battery]; however, at this moment, one can deliver the most murderous cannister fire two or three times, comparing to that even tens of shots worth nothing."^{cdlxxii}

Mitarevskii recounts his own activity at Borodino. Six pieces of his company were placed somewhere between the villages of Borodino and the Raevskii Battery. Ignoring French artillery, which fired at them, they fired at columns of French infantry, which attacked the Raevskii Battery. An officer commanded every pair of guns and officers checked the aim of their pieces personally. After the first French assault on the Raevskii Redoubt was repulsed, they moved their six cannons to the battery and placed them immediately to the right of it. They then fired on French artillery in front of them, which was so close that one could clearly see how the French artillerymen loaded their pieces, and that before the last French assault on the Raevskii Redoubt, they fired cannister at each other. Fortunately for them, they were protected by a little rise of ground right in front of them and by the earthworks of the Raevskii Redoubt on the left, so they lost few men, and the half-company remained in its place for a long time. At the same time, the other Russian artillery companies, which were positioned in the open on their right, suffered heavy losses and were often relieved. They expended their ammunition, but received more from the reserve. Two of their guns were broken and Mitarevskii himself was bruised. During the last French assault on the Raevskii Battery, a crowd of jagers ran into their position, pursued by French cuirassiers. The jagers crowded between the pieces and thus prevented the evacuation of all the guns, resulting in two broken and two intact guns out of their six, two limbers and several caissons being captured by the French. In spite of that, they were recommended for decorations, since General P.M.Kaptsevich, commander of the 7th Infantry Division, wrote: "[They] lost, but not for nothing."^{cdlxxiii}

Nevertheless, artillerists probably often abandoned their positions under the pretext of a lack of ammunition. Various methods were used to prevent this. It was prescribed that, when a caisson was empty, it was to be sent to the artillery reserve; it had to be filled there and returned to the battery (an order issued earlier by Major-General K.F.Löwenstern, commander of the artillery of the 2nd Army, was confirmed by Kutuzov

on 22 September/4 October 1812).^{cdlxxiv} Mitarevskii writes that, at Maloyaroslavets, this method was used.^{cdlxxv} In 1813, in his *General Instructions on the Order of the Troops on the March, in Camps, and in Very Battles* (the end of July/beginning of August 1813) Barclay de Tolly strictly forbade the artillery officers abandoning their positions without a special order, even if all ammunition had been expended.^{cdlxxvi}

As can be seen in the the memoirs of Mitarevskii cited above, Russian artillery usually followed orders to fire on advancing enemy columns, ignoring enemy artillery, and firing at enemy artillery only if there was a no more important target. Major-General K.F.Löwenstern wrote in his report on the battle of Borodino that, in the beginning of the battle the heavy artillery positioned in the Bagration *flèches* initially fired at French artillery, and then shifted its fire to the advancing French columns.^{cdlxxvii}

When the enemy came close to artillery pieces, artillery fired at a maximum rate, and in some cases, artillery was able to repel a cavalry attack through the rapidity of its fire. At La Rothière (20 January/1 February 1814), French dragoons attacked a Russian battery, the artillerists piled ammunition on their greatcoats laid on the ground to have it at hand should it be necessary to fire at a maximum rate. They allowed the dragoons to ride within 300 *sazhen* (640 m approx.) and then started to fire. The French dragoons were not able to ride closer to the battery than 100 *sazhen* (213 m approx) and the attack was repulsed.^{cdlxxviii}

Other recommendations were also followed; for example, the use of oblique fire, which was very effective. At Smolensk, N.N.Muravyev, an officer of the General Staff, “observed the effect of [our artillery] pieces and saw how one cannonball hit obliquely (*en echarpe*) [a unit of] French cavalry, which galloped to attack. This unit became confused and galloped back in disorder.”^{cdlxxix} As it was recommended in Kutaisov’s *General Rules*, pieces were loaded with cannister during a night when the enemy was expected to be close.^{cdlxxx}

An example of the use of artillery in assaults on villages can be found in Radozhitskii’s account of attacks of the 10th Corps of General P.M.Kaptsevich against the village of Schönfeld at Leipzig (6/18 October 1813):

This village presented us a front of not more than a hundred *sazhen* [213 m approx.] wide, but its stone walls helped the enemy to defend it. All its buildings were two-storey, and were of stone; to the side of the field, to the left, stood a cemetery, not a very large one, with a four-sided wall; very many Frenchmen sat behind all the walls; they pelted our skirmishers with bullets and prevented them approaching [the village]. General Kaptsevich ordered twelve guns of Captain Freytag’s heavy company to take a position in front of the village, with the left flank immediately to the river, to fire incendiary projectiles to set the buildings on fire, and to fire cannister at the walls. The village was set afire in many places, but it was impossible to dislodge the enemy skirmishers from behind the walls and buildings, from where they fired through loopholes. Then General Kaptsevich ordered six pieces of our company, under Captain Zhemchuzhnikov, to move along the road right into the village, and to make an assault, together with our infantry. Zhemchuzhnikov, with his guns, took a position at the range of a musket shot, and poured a volley of cannister into the village. Our infantry rushed

with bayonets and with shouts, 'ura', climbed the walls and entered the streets; but suddenly the French, reinforced by fresh troops, fired a hail of bullets at them, and also rushed with bayonets and with shouts, and beat off our attack. Zhemchuzhnikov, having lost several men killed or wounded, withdrew to our heavy artillery and started to fire cannonballs and explosive shell. In this engagement, two horses were killed from under General Kaptsevich, because this general, well known for his bravery, rode under enemy fire, in the first ranks, as an example of courage to the soldiers. Having seen that it was impossible to take the village from the front, even with the fire of 18 pieces, he called me to him (at 2 p.m.), and ordered me, with the other 6 pieces, to take a position to the left of the road, as close to the village as possible. I placed my half-battery in a former French bivouac, and approached the village little by little, hiding behind cabins, so that I was able to fire along the walls and at the cemetery. An enemy battery positioned behind Schönfeld, near the windmills, immediately started to fire at me, but, paying no attention to it and to enemy bullets showering at my half-battery, killing and wounding my men, I wheeled three flank pieces to the right, and started to fire cannonballs along the walls with ricochet fire, and three others started to fire cannister at the cemetery. I managed to dislodge the French from this shelter; then, having moved the left flank of my half-battery even further forward, I started to fire with all six pieces along the whole front of the enemy hiding behind the walls. *Podpolkovnik* Volevach's 6 pieces joined me from the left. Our actions had a decisive effect. Two columns of our infantry immediately ran through our battery and across the cemetery, rushed into the village, poured a hail of bullets, and attacked with bayonets. Thus, Schönfeld was in our hands, and our troops marched forwards.^{cdlxxxix}

Then the French counterattacked and the Russians lost the village, but it was finally retaken several hours later.

Many eyewitnesses state that fire of Russian artillery was effective enough and the Russian artillerymen themselves were usually satisfied with the results of their fire.^{cdlxxxii} General Paskevich says that, at Saltanovka (10/22 July 1812) artillery of his division fired so effectively that the French columns incessantly moved from place to place, and gradually withdrew out of long cannister range.^{cdlxxxiii} Describing the combat at Shevardino, N.N.Muravyev writes: "The French advanced bravely in thick columns, but were repulsed with cannister, and they dispersed, leaving a trail of killed and wounded."^{cdlxxxiv} General Wittgenstein, commander of the 1st Infantry Corps and then commander of a small army covering the roads to St.Petersburg in 1812, many times praised his artillery for its successful actions.^{cdlxxxv} In 1813 the Prussians also admitted the efficiency of Russian artillery fire.^{cdlxxxvi}

At the same time, Russian artillery had a significant disadvantage: the unicorn was not well-adapted to plunging fire, because its barrel could not be elevated at such a high angle as the barrel of the howitzer,^{cdlxxxvii} and Russian artillerymen were not well-trained in plunging fire. Ermolov wrote that, at Borodino, the enemy placed eighty howitzers into the ravines of the Kolotcha River and Semenovskii Brook, so that only the heads of the enemy artillerists were seen, and Russian artillery was unable to silence or

dislodge them.^{cdlxxxviii} The maximum range of French howitzers was longer than that of the Russian unicorns. I.S.Zhirkevich, an officer in the 2nd Guard Light Artillery Company, writes that, at Bautzen, French howitzers fired at his battery at such a range that he was not able to reply to them.^{cdlxxxix}

According to the recommendations of theorists, artillerists moved their pieces when they were under heavy enemy fire. Radozhitskii writes, in his memoirs, that in the combat of Ostrovno (13/25 July 1812) he started a firefight against three enemy pieces with two guns, and managed to destroy one of the enemy guns. When he noticed that enemy cannonballs fell close to his guns and one of them killed one of his artillerists, he moved his guns a bit forward (he says ten paces, but it seems to be too short), and then most enemy cannonballs flew over their heads.^{cdxc} G.P.Meshetich, an officer in the 2nd Heavy Artillery Company (the 11th Artillery Brigade, which also included Radozhitskii's 3rd Light Company), writes that, when at Borodino, the Keksgolmskii (Kexholm) Infantry Regiment, which was formed in line, was fired upon by French artillery and then attacked by several squadrons of French cavalry, he was ordered to support the infantry with four guns. He moved his guns at a trot, unlimbered them, and fired cannister obliquely at the approaching French cavalry, which turned back in disorder. He then placed his pieces at the right flank of the regiment. The enemy artillery fired at them, and several other squadrons of French cavalry approached them at a moderate pace. Upon an agreement with the commanding officer of the regiment, they moved together about 70 *sazhen* (about 150 m) forward, and he fired cannister at the enemy cavalry, which stopped, to the Russian's surprise. Meshetich writes that, because the cavalry was no longer threatening them he chose to save his cannister and, in order to save the infantry from further casualties, shifted his fire to the French artillery, firing round shot. In addition, he states that his forward movement confused the French artillery and because they had shifted positions, the French artillery fire flew above them.^{cdxci}

As can be seen from memoirs of Meshetich, cited above, and memoirs of many other officers, artillery, even heavy, was able to move at a trot, with the gunners riding the gun carriages and limbers.^{cdxcii} A.K.Karpov, an officer in the 6th Light Artillery Company in 1813, wrote that, at Kalisch (1/13 February 1813), towards the evening, they were attacked by enemy cavalry, and they retired about 200 *sazhen* (about 430 m) at a trot, having placed the men on the carriages, and escaped the danger.^{cdxciii} During the campaigns of 1812-14, Russian artillery distinguished itself with its mobility. Major-General A.A.Euler writes in his memoirs that, during the retreat after Bautzen, no guns were lost.^{cdxciv} Describing the retreat after the battle of Dresden (15/27 August 1813) Mikhailovskii-Danilevskii writes: "we marched through the mountains, and there our artillery proved itself superior. It was moved up steep winding paths almost without any difficulty, as if on flat terrain, while the Austrian pieces and caissons, and especially their trains stopped, at almost every step."^{cdxcv}

When it was necessary to increase the mobility of artillery, additional horses were used. At La Rothière, there was such deep mud that A.P.Nikitin, commander of the artillery in General Sacken's corps, asked to allow him to go into battle with 36 pieces, leaving the other 36 in the rear to use them to cover the retreat if it would be necessary, and in order to use the horses of those guns to draw the guns that were to be taken into battle. Light pieces were drawn by six horses each, and heavy ones (12pdr guns and ½

puł unicorns) were drawn by ten horses each. The men were placed on carriages, limbers, and caissons.^{cdxcvi}

The infantrymen greatly appreciated the artillery; they cheered the artillerymen and bravely defended the artillery pieces.^{cdxcvii} After Borodino, Mitarevskii heard a talk of several wounded soldiers, infantrymen, who were blaming the cavalrymen: "you, cavalry, you are not doing it right; you trample the infantry", but when they saw him, they all praised the artillerymen as their "true defenders."^{cdxcviii} Artillerists also prized the respect of infantry. Mitarevskii writes that at Maloyaroslavets, when the Moskovskii Infantry Regiment was sent to reinforce the troops fighting in the town, he, with four artillery pieces attached to the regiment, moved ahead of the regiment as it marched at a fast pace. He took a position slightly to the left of the road to Kaluga, not far from the town. Russian troops had already retreated from the town. Masses of French infantry emerged from the town and were forming in columns very close to his guns. Mitarevskii ordered his guns unlimbered, but the French fired a volley and wounded several drivers and horses. He ordered the guns loaded with cannister. Just as they were ready, the French marched at them and he ordered the first gun to fire, but an artillerist with a linstock was unable to hit the touchhole. It was his first experience in battle and his hands trembled too much. The battalions of the Moskovskii Regiment arrived and stopped, and the infantrymen looked at the trembling artillerymen. Mitarevskii writes that he was ashamed; he took the linstock, pushed the artillerist aside and fired the gun himself, and other pieces followed him. Mitarevskii says that the enemy was already close, and so his fire was very effective; the French infantrymen fell by almost whole ranks, and were thrown in disorder. The Russian infantrymen cheered his artillerymen; they fired quickly, and the French fell back.^{cdxcix}

In 1812-14 Russian artillery did not suffer from enemy foot skirmishers as much as in the 1805 and 1806-07 campaigns. The same artillery officer who wrote down stories about heavy casualties from fire of enemy skirmishers he heard from senior officers, writes: "I was surprised when, in 1812, in my first engagements with the French, I did not notice any dangerous fire from their skirmishers at all; at Smolensk, Borodino, and Maloyaroslavets, we suffered little from them, and for a short time only, and later I never saw even once that our artillery paid any attention to them. It happened, sometimes, that a soldier or a horse were hit, but then one cannister shot of the flank piece was usually enough to shake them off. It is probable that the number of trained and good marksmen had decreased among the French troops, and their muskets fired worse as time passed, or they were manufactured worse."^d In fact, the danger had probably decreased so significantly because the new Russian cannister was much more effective, and because the Russian infantry became much more effective in defending artillery from enemy skirmishers.

As can be seen from the foregoing commentary, the Russian artillery became a very effective service arm able to cooperate effectively with the other arms. Unfortunately, the organization and higher-level command of the artillery were still not very effective. Artillery had its own higher command structure: commanders of artillery brigades, commanders of corps artillery, commanders of army artillery, but the artillery was still distributed among the troops of other arms and attached to them.

The commander of army artillery was to place artillery batteries at advantageous positions, to organize the artillery reserve and ammunition supply, and to control the

artillery during battle. Bagration wrote, in his order to the 2nd Army (25 June/7 July 1812) that the commander of the army artillery had to inform all his subordinates about the place where they could find him during a battle (Bagration was reminded that, at Friedland, General Rezvoi did not do this, and no one could find him when it was necessary).^{di} N.Lyubnikov, an officer in the 33rd Light Artillery Company, wrote that, during the day before the battle of Borodino, General Kutaisov rode along the position of the army and discussed with artillery officers advantages and disadvantages of various artillery positions.^{dii}

Nevertheless, the use of artillery at the battle of Borodino was not well organized. P.Kh.Grabbe, an artillery officer and an ADC to Ermolov in 1812, writes that, at Borodino, the artillery reserve was used not according to the plan of its commander, but artillery companies were sent into battle either on the request of local commanders or on the initiative of the company commanders. As a result, the artillery companies joined battle, one-by-one, against hundreds of enemy guns placed at well-chosen positions, so that some artillery companies were almost destroyed even before they were able to fire their first shot. The supply of the artillery with ammunition was also not well organized.^{diii} Kutuzov believed that all this was a consequence of the death of General Kutaisov (he took part in a counterattack at the Raevskii Battery described further).^{div}

Mitarevskii describes the fate of the artillery companies in the open on the right of the Raevskii Battery:

A heavy artillery company that was positioned there when we arrived was soon withdrawn. Another one deployed in the same place. Before it was able to deploy and unlimber, hundreds of [enemy] cannonballs flew there. The men and horses were butchered in the literal sense of the word, and splinters flew from the carriages and caissons. ... Having fired about five shots, the company abandoned its position; another one arrived at the same place – and suffered the same fate. ... What could the artillery companies placed, one-by-one on the hill to the right of us do against fifty or even hundred guns? If three or four companies would have been deployed and started firing at once, one might have expected some success. There was enough space to deploy them and it is said that there were enough guns in the reserve. The use of artillery in other places was probably also like that. Fieldmarshal [Kutuzov] had a reason to regret the death of General Kutaisov.^{dv}

In other places of the battlefield, the situation was similar, indeed, some other memoirists mentioned that artillery companies fought for an hour or so, and took such heavy casualties that they were unable to fight any more.^{dvi} There were rumors that the large artillery reserve organized before the battle was not used because of the death of General Kutaisov, but, in fact, the artillery reserve was used up,^{dvi} although not all artillery companies took an active part in the battle. By the end of the day, only two heavy, six light, and one horse company had taken insignificant casualties; two light companies on the extreme right flank and one company of Don Cossack artillery did not take part in the battle at all.^{dvi}

I.P.Liprandi thought that the death of Kutaisov had no great influence on the course of the battle, because all his staff and the commanders of the reserve artillery

remained alive. He writes that the Russians were incapable of using large numbers of artillery successfully. Batteries were reinforced in a piecemeal fashion, as was done with skirmishers. He added that the very organization of Russian artillery prevented its use in large numbers at one point when it became necessary, since most artillery companies were attached to infantry divisions. It was impossible to concentrate the artillery in time, because, even if the neighboring divisions were from the same corps, too much time was spent in combining their artillery. However, if the neighboring divisions were not from the same corps, it was almost impossible to join them. In addition, the reserve artillery was too far back and sending a few companies where they were necessary was not the proper way to use reserve artillery. Liprandi admitted that he was not aware of any examples of the successful use of large masses of artillery in the Russian Army, except at the battle of Dennewitz (25 August/6 September 1813) in which the Russian artillery decided the affair on the right flank.^{dx}

Barclay probably understood the difficulty, since a day before the battle of Borodino, he wrote in his order that no one was to obstruct the army artillery commander in the use of the reserve artillery.^{dx} In 1813 he wrote, in his *General Instructions on the Order of the Troops on the March, in Camps, and in Very Battles* (the end of July/beginning of August 1813), that the artillery reserve was to be used directly by the C.-in-C.^{dx1} He probably realized that artillery commanders were not able to properly evaluate when and where it was to be used.

In 1813-14 the management of artillery improved, at the corps level at least. In this period the commander of artillery of an infantry corps managed all the artillery of the corps under the direction of the corps commander. For example, at Craonne, General Sacken ordered to Nikitin, the artillery commander of his corps, to place a large battery to cover the retreat of General Vorontsov's troops. Nikitin deployed 36 light pieces in the first line, and 28 heavy ones in the second, 60 paces back; the first line fired cannister, the second – cannonballs and explosive shell through the intervals in the first line.^{dxii}

Chapter 14

Field fortifications.

In defensive battles, when there was enough time, field fortifications were constructed for artillery batteries. Unfortunately, there were no detailed descriptions of these works, except the famous Raevskii Redoubt used in the battle of Borodino. D.Bogdanov, a pioneer *porutchik* (lieutenant) in 1812, wrote, in his memoirs, that a day before the battle:

At eleven p.m., I was ordered to ride to General Raevskii. I found him at a battery built in consequence of an order he had issued. The battery was completely finished, and artillery pieces were in their places; it comprised almost a straight line, so that its front angle was more than 160 degrees and was pointed to the junction of the Semenovskii Brook with the Kolotcha River. Its right face extended in the direction of two batteries near Gorki Village and the artillery of the 6th [Infantry] Corps, and on the left face, it dropped to the line of the 7th [Infantry] Corps where it was protected by its artillery pieces and by an open battery of 60 pieces placed near Semenovskoye Village; because of all this, the whole space in front of it was protected by a heavy crossfire. General Raevskii met me with the following words: 'We have built this battery ourselves; your commander, visiting me, praised our work and its placement, but as the open and flat terrain can be accessed by cavalry, so he advised us to dig a line of wolf pits at 50 *sazhen* in front of the battery; we have done this; now, the one and most important [problem] remains: the enemy can outflank us and take the battery from the rear; it is necessary to make a strong obstacle to him. Inspect all and tell me what and how to do.'

The battery had 19 artillery pieces, the length of the front line was up to 60 *sazhen*; the width of the moat was 3.5 *sazhen*; the depth near the counterscarpe up to one and a half *sazhen* ... it was necessary, despite the lack of time, to add two epaulments of ramparts and a moat on the flanks, and to cover the rear with double palisade with two passages with palisaded gateways in them; ... The [length of each of the] flanks were ordered to be equal to 12.5 *sazhen*; the [two rear] palisades was set a half *sazhen* deep into the ground; the front one was 8 feet [almost 2.5 m] high; the inner one 6½ feet [almost 2 m] high; the fortification ... was finished by a half-past four in the morning.^{dxiii}

Liprandi and other eyewitnesses wrote that the battery was not finished: the ramparts were low and not strong enough, and were quickly destroyed by enemy artillery fire.^{dxiv} The Bagration *flèches* were also hastily built earthworks.^{dxv} There were three separate earthworks, and formally only the middle and rearmost one was a *flèche* (a simple, V-shaped earthwork), two other formally were *redans* (V-shaped earthworks with short epaulments).

Before the battle of Borodino, both villages of Gorki and Semenskoye were demolished, except a few houses occupied by generals.^{dxvi} Houses in Russian villages were built of wood, gave no protection from enemy artillery fire, and could be easily set on fire.

Chapter 15

Higher level tactics.

A.I.Khatov, in the second volume of his book, titled *General Essay on Tactics* published in 1810, offered some ideas on how to fight against the French. He argued that the best position had flat and open terrain in front of it, with the flanks well covered by local obstacles. The first line was to consist of infantry formed in line, with little cavalry behind it; the second line, 200-300 paces behind the first, was to consist of infantry in columns, with all other cavalry behind it. Strong artillery batteries were to be placed in front of the first line. The French would be forced to advance over the open terrain, subjected to artillery fire and threatened by cavalry; their skirmishers would have no cover. The first line would meet them with bayonets; cavalry would attack their columns on the flanks; they would be thrown in disorder, which, as Khatov wrote, was shown many times during the 1807 campaign. If the French managed to break through the first line, they would be in full disorder; the second line would attack them, while the first one would retreat behind it.^{dxvii}

An anonymous author of an article published in the *Military Journal* in 1810 also recommended that some cavalry be held behind the first infantry line. He wrote that, if the first infantry line overthrows the enemy, it would be in disorder itself; that the second infantry line would not be able to help it quickly enough, and when the first infantry line is broken, it is in a great danger from enemy cavalry, if there would be no friendly cavalry close to it. He advised having a line of infantry, with skirmishers before it; in the second line, if the terrain was favorable to cavalry, there should be some cavalry, and where the terrain is unfavorable to cavalry, to have infantry.^{dxviii} In spite of the recommendations of the theorists that some cavalry be held behind the first line of infantry, it was not done in large scale engagements.

Another anonymous author argued that the soldiers, and especially the Russian soldiers, fought much more bravely in offensive actions than in defensive ones, and any first success over enemy front line troops encouraged them; the offensive gave the troops a psychological advantage, so he insisted that, even in defense, it was necessary to switch to the offensive in a case of success.^{dxix}

As it has been written, there were not many large-scale maneuvers before the 1812 campaign, while divisional maneuvers became more frequent. For example, in the summer of 1811, General P.P.Konovnitsyn organized maneuvers, with the troops gathered in camp near Belitsa at the Niemen River. The troops were divided into two detachments; the first detachment consisted of the Tchernigovskii and Koporskii Infantry Regiments, three squadrons of the Sumskii Hussar Regiment, and six light artillery pieces; the second one, of the Muromskii Infantry Regiment, a converged grenadier battalion, two squadrons of the Sumskii Hussar Regiment, and four light artillery pieces. The detachments were to maneuver one against another; special attention had to be paid to the outpost service, the use of skirmishers, and the cooperation of arms.^{dxix} In May 1812 Tsar Alexander was present at the maneuvers of Konovnitsyn's 3rd Infantry Division at Vilna and held it up as a model for the whole army.^{dxxi}

The troops were formed in standard divisions and corps. Each infantry corps consisted of two infantry divisions (24 battalions and 72 artillery pieces in total, not

counting the composite grenadier battalions, which were organized into separate brigades or divisions) and one light cavalry regiment (eight squadrons), so a corps had not enough cavalry to act independently. Cavalry corps were in fact divisions.

In 1812 a book titled *Institution for Management of a Large Acting Army* was printed in which the prerogatives of army commander were listed. According to the book, the orders of the army commander had to be carried out in the same way as the Tsar's edicts; the army commander was able to deprive anyone of command, irrespective of his rank, to exile anyone from the army, to court-martial anyone, to confirm sentences of death delivered by the court-martial, to promote NCOs to officers, to promote officers up to the rank of captain, to confer the Military Order, 4th Class Order of St. Vladimir, 4th Class, swords "for bravery", and orders of St. Anne, 2nd and 3rd Class.^{dxix} The prerogatives of the army commander were significantly increased and his authority was raised when compared to the previous period. Unfortunately, in 1812, when the 1st and 2nd Armies joined at Smolensk, and even after General of Infantry M.I. Kutuzov, then 67 years old, was appointed C.-in-C. of all Russian armies fighting against Napoleon, they remained two separate, independent armies under the command of Barclay de Tolly and Bagration. They were only reorganized into a single army after the battle of Borodino and abandonment of Moscow, in camp at Tarutino (16/28 September).

When Kutuzov joined the armies, they were preparing to give a battle at a position, which Barclay considered good.^{dxixi} Kutuzov ordered a retreat; he wished to wait for the arrival of reinforcements, 15,000 of trained recruits led by General M.A. Miloradovich. They joined the army before the battle of Borodino and were distributed to various regiments. The opposing armies at Borodino were almost equal in strength, but Kutuzov's army contained 15,000 recruits, 7,000 Cossacks, and 10,000 militiamen that were barely trained.^{dxixii} Only a small part of the militiamen were armed with muskets, others had pikes and axes; they were sent to the artillery train or used to help the wounded and generally kept out of the battle. Napoleon had significant numerical superiority in veteran, regular troops, especially in cavalry; 28,000 against 17,500; Kutuzov had the advantage in artillery, 640 cannons against 587.^{dxixiii}

The position at Borodino was not very good, but Clausewitz wrote that Russia lacked strong positions: the terrain was mainly plain; the villages were built of wood; the cornfields were not enclosed.^{dxixiv} There are two versions explaining the shape of the position of the Russian Army at Borodino and the purpose of the Shevardino Redoubt. According to the first version, the initial position of the Russian armies was a straight line. The right flank was well protected by the steep bank of the Kolotcha River, but the left flank was not protected by any terrain feature, and the deep ravine of the Semenovskii Brook stretched not far behind it. A strong redoubt was built on the left flank near the village of Shevardino. Kutuzov, inspecting the position on 24 August/5 September, ordered the left wing bent backwards in order to place the main force of the 2nd Army behind the ravine, and to construct fortifications (later known as the Bagration *flèches*) to strengthen this new position.^{dxixv} After the change of the position, the Shevardino Redoubt was situated too far forward from the new position, so it became useless and had to be abandoned, but the enemy pressed the Russian rearguard so hard that there was not enough time to withdraw the troops and to place them in the new position, and so it was necessary to hold the redoubt for some time. That led to a fierce large-scale action on 24 August/5 September 1812, which lasted until nightfall and drew

a large part of the 2nd Army into the fight. This version is mainly found in the memoirs of generals and officers of the 1st Army, but some generals and officers of the 2nd Army gave another explanation. The Count E. de St. Priest, Chief of Staff of the 2nd Army, Major-General M.S. Vistitskii, Quartermaster-General of the 2nd Army, and some others, believed that the Shevardino Redoubt was built only to delay the enemy, and to allow the rearguard to retreat safely.^{dxxviii}

A hill where a famous earthwork, later named the Raevskii Redoubt, was built, was not initially included into the main battle line, which was placed at a distance of about 250 *sazhen* (533.5 m) behind it. Only a company of heavy artillery and a few infantry battalions were placed on the hill (during the battle, the Raevskii Redoubt was called Schulmann's Battery, after G.M. Schulmann, commander of the 26th Heavy Artillery Company, which was placed on the hill). A day before the battle (25 August/6 September), Kutuzov, with his staff, inspected the position of the army and visited the hill. I.P. Liprandi, a quartermaster-officer in the 6th Infantry Corps, heard a discussion about what kind of fortification would have to be built there.^{dxxix} General Bennigsen, whom Kutuzov appointed his Chief of Staff, proposed building a strong redoubt (*en redoute fermée*); i.e., a closed earthwork, with two or three artillery companies and four or five infantry battalions as a garrison, and many generals agreed with him. Colonel C.F. von Toll, Quartermaster of the 1st Army, argued that the left flank of the 6th Infantry Corps and the right flank of the 7th Corps should be anchored on the hill, and then a simple battery of eighteen artillery pieces should be built at the top of it. He wrote that troops would not be able to support nor to reinforce the garrison of the closed redoubt in critical moments; that if the enemy should take the redoubt, the Russian Army would have lost many men and guns, and the enemy would then dominate the whole field of battle. Many generals supported Bennigsen's proposal (Barclay wrote that it was he who advised Kutuzov to build a strong redoubt there^{dxxx}). Kutuzov wrote a few words in favor of both opinions, but did not express his own final decision. Since a simple battery or *redan* was actually constructed, Kutuzov probably tended towards Colonel Toll's opinion (Toll had graduated from the Land Cadet Corps in 1796, when Kutuzov was director of the Corps, and in 1812 Kutuzov was glad to meet him and used him as his second chief of staff^{dxxxi}). Liprandi writes that it was a wrong decision, because, when the enemy eventually captured the battery, the Russian troops were forced to withdraw to the original line in disorder, under heavy fire, and hard pressed by enemy cavalry. He says that, if Bennigsen's advice had been accepted, the Russians would have had great advantages, especially if the redoubt were built well enough, because the enemy storming the redoubt would have been disordered while trying to attack it from the flank, and would have exposed his own flanks to the Russian troops standing behind the redoubt.

It must be noted that theoretical works published before the campaign did not support Bennigsen's opinion. As it has been mentioned in the chapter on artillery, I.G. Gogel recommended, in one of his articles on artillery tactics, that artillery not be placed in isolated fortifications before the main line of the troops. He also wrote that a fortification for artillery had to have one or two reliable exits to allow the artillery to retreat, and the Raevskii Redoubt did have two exits.^{dxxxii} The idea of a passive defense formed around closed earthworks was also not favored by Russian officers. An experienced jager officer wrote, in his article published in 1810, that soldiers defending fortifications usually lost their heart when an enemy reached the moat, in spite of the fact

that only then did the real attack start, and that in this moment the defenders had all advantages on their side.^{dxiii} This effect is explained in a military manual published after the Napoleonic Wars: soldiers defending a fortification relied on their fire to stop an enemy and considered the rampart as their protection, and if they saw that the enemy was not stopped by their fire, they lost their heart, and the first enemy soldiers who appeared at the top of the rampart would put the defenders to flight. The authors of the manual believed that fortification should be defended by a reserve, rather than the troops positioned along the ramparts. This was because the soldiers of the reserve knew that their mission was to counterattack the enemy, and so they relied on their bayonets, not on fire or the rampart.^{dxiv}

Bennigsen's opinion seems to be quite in error. An isolated redoubt, without the effective support of other artillery positioned several hundred meters behind it, would have been under concentrated enemy artillery fire; it would have been quickly destroyed and stormed by the enemy. The Russian troops standing too far behind would have not been able to counterattack in time to take it back. This is clearly seen from what really happened during the first French assault on the redoubt. It was stormed by enemy infantry from the front, in spite of the heavy artillery fire of the redoubt itself and of the Russian artillery positioned immediately to the right and left of it.^{dxv} However, it was very quickly taken back by the Russians, because their troops were close enough and it was easy to enter the redoubt from the rear. If a strong redoubt were built, the French infantry probably would not have been able to take it from the front so quickly and easily as they did, but there was no time to build such a redoubt. Liprandi himself and other eyewitnesses say that even the simple battery was not finished; the ramparts were low and were quickly destroyed by enemy artillery fire.^{dxvi}

The left flank was weak; it was not well protected by terrain features, and the old road from Smolensk to Moscow went round the extreme left flank. General Bennigsen proposed that the 2nd and 4th Infantry Corps of the 1st Army be moved from the right flank, which was well protected by the Kolotcha River, to the center, so as to make them ready to support the 2nd Army, in addition to the reserve, consisting of the 3rd and 5th (Guard) Infantry Corps.^{dxvii} Barclay proposed shifting both armies laterally to the left, so that his 1st Army would have occupied a position between Gorki Village and the *flèches* (including both these points), and the 2nd Army would have been placed at the old road.^{dxviii} He probably wished to retain control over all corps of his army, but it is clear that it was very dangerous to move the whole army laterally to the side in the close presence of an enemy such as Napoleon, and that there was not enough room for the 2nd Army on the old road. Both proposals were not accepted; only the 3rd Infantry Corps was moved from the reserve to the old road and formed the extreme left flank. Barclay complained that the order was given directly to the corps commander, passing over him, while the corps belonged to his 1st Army.^{dxix} Kutuzov ordered the corps be positioned so that the enemy would not be able to see it, but later that day, General Bennigsen visited corps commander, Lieutenant-General N.A. Tutchkov, and ordered him to move the corps a bit forward, in spite of Tutchkov's protests and without informing Kutuzov about it.^{dxl} It is clear that the new high command structure still did not work smoothly.

A day before the battle, both Kutuzov and Barclay de Tolly stressed, in their orders the importance of the preservation of reserves as long as possible.^{dxli} Barclay also warned of the danger of going too far during the pursuit of routed enemy troops; the

troops had to keep close enough to friendly troops that they could be supported.^{dxlii} In the morning of the day of the battle, as the battle began Barclay was at a battery in front of the village of Gorki, between the 4th and 6th Infantry Corps, Kutuzov was somewhere behind the 6th Infantry Corps, nearly a *verst* (one km) behind its second line.^{dxliii}

When the battle started early in the morning on 26 August/7 September, the main enemy assault was directed at Bagration's 2nd Army. The *flèches* were defended by the Combined Grenadier Division, consisting of grenadier companies of the second (reserve) battalions of the regiments of the 2nd Army formed in battalions of three companies each. In his autobiography, written in English, Vorontsov briefly describes the actions of his division in the battle of Borodino:

On the 26th, early [in the morning] the battle, or rather, the butchery of Borodino began. The whole of the French force was directed against our left flank; consequently, on the *flèches* (defended by my division); more than a hundred pieces of artillery played some time upon us, and the greatest part of the best French infantry, under marshals Davoust [sic!] and Ney, marched straight upon us. Our *flèches* were stormed after a stout resistance, were retaken by us, stormed again by the French, retaken once more, and were, at last, soon lost again, from the overpowering force employed against them. I was wounded by a musket ball in the thigh, as we were in the act of retaking the *flèches* the first time; my brave division was entirely destroyed, and out of nearly 5,000 men, not more than about 300, with one field-officer ... remained untouched or slightly wounded; 4 or 5 of our divisions met with very nearly the same fate on the same ground.^{dxliv}

In fact, of the 4,059 grenadiers in the division before the battle, almost 2,500 were killed or wounded, others were scattered. V.I. Timofeyev managed to gather about a hundred of the grenadiers and formed them beside his battalion (the second battalion of the Life-Guard Litovskii Regiment). Later, he sent fifty of them to the nearest artillery battery to replace casualties.^{dxlv} The 27th Infantry Division and the 2nd Grenadier Division also took part in the fighting.

It was necessary to reinforce the troops defending the *flèches* as soon as possible, Bagration asked for reinforcements, but there was no time to wait for their arrival, and he took them wherever possible. He took the second line of the 7th Infantry Corps of Lieutenant-General Raevskii, positioned between the Semenovskoye and Raevskii Redoubts^{dxlvi} and requested of Lieutenant-General N.A. Tutchkov an infantry division. The 3rd Infantry Corps belonged to the 1st Army, and Tutchkov was not subordinated to Bagration, but he sent the 3rd Infantry Division to the *flèches*. The closest reserve was the 5th (Guard) Corps, and Kutuzov ordered the 1st Combined Grenadier Brigade of the 1st Army and two Guard infantry regiments, the Izmailovskii and Litovskii, to move to support Bagration. The orders were again given without consulting or informing Barclay. When he learned of this, Barclay was enraged; he personally went to Kutuzov and expressed his indignation to him.^{dxlvii}

The reinforcements helped Bagration to defend his position for some time, but eventually, Bagration was mortally wounded, the *flèches* and Semenovskoye Village were captured by the French, and Bagration's troops were pushed back in confusion. It

was difficult to restore order, because many generals were killed or wounded, and the troops had been drawn from different corps, which confused the lines of command. The two Guard regiments stabilized the situation and gave other troops the time to rally. General P.P.Konovnitsyn, commander of the 3rd Infantry Division, first took command of the troops, and then Kutuzov sent Lieutenant-General D.S.Dokhturov to command the left flank.

Lieutenant-General K.F.Baggowut, commander of the 2nd Infantry Corps, was ordered to lead his corps from the right flank to the left one. According to a new order received from Barclay de Tolly, he left one of his two divisions (the 4th, Major-General Duke Eugen von Württemberg) in the center, and led another of his divisions (the 17th, Lieutenant-General Z.D.Olsufyev) further to the left, to help Tutchkov to hold the old road to Moscow. The 4th Division was later also divided: two regiments were left in the center and the other two were led by Duke Eugen von Württemberg to the left and joined Baggowut.^{dxlviii} Thus, during the course of the battle, most of the 2nd Infantry Corps marched across the whole battlefield, from the extreme right flank to the extreme left one, more than seven kilometers.

Meanwhile, the French launched the first assault on the Raevskii Redoubt. A.P.Ermolov, Barclay's Chief of Staff, wrote that he was sent by Kutuzov to the 2nd Army "to put the artillery in good order". Riding there, he noticed that Raevskii Redoubt had been captured by the enemy. He ordered the 3rd Battalion of the Ufimskii Infantry Regiment, under the command of Major F.P.Demidov (the 24th Infantry Division, 6th Infantry Corps positioned between Gorki and the Raevskii Redoubt), to counterattack. Ermolov wrote that he personally led the counterattack. In a ravine near the battery, he found the 18th, 19th, and 40th Jager Regiments, and ordered them to attack with the bayonet together with the battalion of the Ufimskii Regiment. The redoubt was quickly taken back; many enemy soldiers were killed, the rest were routed and pursued, French General Bonamy was taken prisoner^{dxlix} (one Zolotov, a *Feldwebel* (senior NCO) in the 18th Jager Regiment, later transferred to the 34th Jager Regiment, was promoted *podporutchik* (sub-lieutenant) for the capture of this French general^{dl}).

Major W. von Löwenstern, an ADC to Barclay, wrote that, in fact, it was he who first rushed at the Redoubt with one battalion of the Tomskii Infantry Regiment (of the same division), and that Ermolov only followed him with other troops. Löwenstern claims that he personally cut General Bonamy with his sword, and that, when the redoubt was taken, Ermolov embraced him and wrote that he would get the Order of St. George for sure, but later Ermolov, forgot to mention him in reports and instead presented himself as he who took the initiative and first led the troops.^{dli} Their actions, however brave, were only a part of the whole picture. According to memoirs and a report of General Raevskii, Major-General I.F.Paskevich, commander of the 26th Infantry Division, counterattacked the enemy to the right of the redoubt; Major-General I.V.Vasilchikov, commander of the 12th Infantry Division, did the same to the left of the Battery.^{dlii}

When the *flèches* and Semenovskoye were taken by the enemy, the position of the Russian Army bent even more, and the troops around the Raevskii Redoubt were under a heavy crossfire.^{dliii} The French started to prepare the next assault at the redoubt. At this moment, the raid of the 1st Cavalry Corps and several Cossack regiments on the French left flank took its effect; the French preparations were delayed. This gave the Russians some time to put their troops in order and to bring up reserves wherever necessary.

The second French assault on the redoubt was successful. Massed cavalry attacks pinned the Russian troops in their place and they were not able to counterattack. The redoubt was so battered that French and Saxon cuirassiers attacked it and managed to penetrate into it, but they were forced out of it by fire of Russian troops standing behind the redoubt, and it was eventually taken by French infantry.^{dliv} At the beginning of the last French assault on the redoubt, the Russian infantry defending it was ordered to hold fire until a special command was given. Waiting for the order, the infantrymen sat inside the fortification along the rampart. Two small reserves were also placed inside the redoubt.^{dlv} General P.G.Likhatchev, commander of the 24th Infantry Division (the 6th Infantry Corps), the last defender of the redoubt, was taken prisoner.

After the capture of Raevskii Redoubt, the French tried to pursue the Russians with cavalry and French infantry also tried to move forward, but the cavalry was thrown back, and the infantry returned to the captured redoubt. The Russian troops occupied a new position nearly 1,000 paces back from the redoubt and Semenovskoye. General Baggowut, on the old road to Moscow, was also forced to retreat and joined the left flank of the army. The French tried to pursue him, but were stopped by counterattacks and artillery fire. That was the last action of the day, the cannonade stopping a few hours later. In the evening, after the battle, Kutuzov sent a message to Barclay and Dokhturov: "From all enemy actions, I see that he is weakened not less than we are in this battle, and, therefore, having started the affair with him, I decided to put all [our] army in order during the night, to supply the artillery with new ammunition, and to renew the battle tomorrow. Any retreat in [our] present [state of] disorder will cause the loss of the entire artillery."^{dlvi}

Nobody in the whole Russian Army considered the battle lost.^{dlvii} General Dokhturov believed that the battle was won.^{dlviii} In the evening, Kutuzov ordered that the troops be told that next day they were to attack the enemy.^{dlx} The troops received the order with joy.^{dlx} Barclay wrote that the troops were preparing to fight the next day, when suddenly, the order to retreat was given.^{dlxi}

There are various reasons given for the retreat after the battle of Borodino. Ermolov and A.A.Shcherbinin, a General Staff officer, wrote that it was the report on the situation of the left flank, where the old road to Moscow went right to the rear of the Russian Army, and where the Russian troops were drawn too far back.^{dlxii} Liprandi says that, at 11 p.m., a Bavarian cavalry colonel, who was taken prisoner, was brought to the Russian Headquarter, and informed the Russians that Napoleon's Old Guard did not take part in the battle, remained intact, and this was the reason for the retreat.^{dlxiii} Kutuzov himself explained, in his first brief report to Alexander I that, because of heavy losses, the initial position became too wide for the remaining forces of the army.^{dlxiv} Some sources name both reasons.^{dlxv}

In fact, the Russian Army was exhausted. By the evening, only two Guard regiments in the center and four jager regiments on the right flank (fourteen infantry battalions in total),^{dlxvi} and six artillery companies had remained almost intact. All other units had taken heavy casualties; there were no fresh cavalry and many generals and officers were killed or wounded. The losses in the 2nd Army were especially heavy; units of various corps and divisions were intermingled with one another. There were woods immediately to the rear of the new position of the army, making it dangerous to defend the position, because, if the enemy had managed to push the Russians a little back, they

would have been pressed into the woods and completely disordered. It was necessary to attack the enemy, but the army lost so many generals and officers that it could not maneuver successfully; it could fight in defense, but could not advance.^{dlxvii} Mikhailovskii-Danilevskii wrote that, late in the night, when Kutuzov was planning to attack the enemy the next day, he personally heard that Kutuzov wrote that, if the Russian troops had achieved success and it had become necessary to advance further, there would have been great difficulties; as he wrote, "*parce que nos troupes ne sont pas assez manoeuvrières*."^{dlxviii}

Both Napoleon and Kutuzov were often blamed for their apparent inactivity on that day, and in both cases, the accusation is unjustified. It is well known that Napoleon watched the battle closely, sent orders to his marshals, and threw in reserves when necessary. Many eyewitnesses wrote the same about Kutuzov. Mikhailovskii-Danilevskii wrote that he, many times, personally carried out Kutuzov's orders that day; that Kutuzov made all important decisions personally, and that nobody dared to give advice to him if he did not ask for it.^{dlxix} W. von Löwenstern and Shcherbinin saw Kutuzov mounted on his horse; he listened to reports from generals and messengers, gave them orders, and threw in reserves.^{dlxx} Barclay the Tolly, Bargation, later succeeded by Dokhturov, Bennigsen, and Toll, controlled the course of the battle directly. Ermolov wrote that, at Borodino, Barclay was in the most dangerous places, personally observed all actions and directed his troops.^{dlxxi} W. von Löwenstern wrote: "Barclay might not be a great strategist, but there is no doubt that he was an excellent general. Kutuzov knew this and therefore gave him a free hand."^{dlxxii} Kutuzov asked Tsar Alexander I to decorate Bennigsen and Barclay for their actions in the battle.^{dlxxiii} Kutuzov himself was promoted fieldmarshal.

Attempts were made to find a new position between Borodino and Moscow, but no good position was found, and it was decided to abandon Moscow. After a few rearguard actions, there was a lull in the campaign; Napoleon stopped in Moscow, while the Russian armies established a camp at Tarutino. They were reorganized into a single army (16/28 September 1812)^{dlxxiv} and numbers of trained recruits arrived in the camp.

At the combat of Tarutino or Vinkovo (6/18 October 1812), a French advance guard, under the command of Marshal Murat, was caught unprepared and should have been destroyed, but the Russian troops had not taken prescribed positions in time. The 2nd Infantry Corps was delayed by contradictory orders. A part of the corps and the 4th Infantry Corps strayed from their routes in the woods and arrived late.^{dlxxv} This showed that the Russian generals were not able to maneuver large masses of troops successfully.^{dlxxvi} After the battle, Kutuzov wrote to Ermolov: "we have not matured yet to [carry out] complicated maneuvers."^{dlxxvii}

In general, tactics used in the 1812 campaign were the same as in the previous campaigns: meet an enemy with heavy artillery and musket fire, when he came close, to counterattack him with bayonets, and then to return to the original position. If the enemy managed to force the Russians back from their position, they counterattacked to retake the position. Even in the second stage of the campaign, when Russian armies pursued the French, they rarely dared to attack them vigorously with large forces. When the Russians managed to cut the line of retreat of a part of Napoleon's army at Krasnoi, near Smolensk, they took a position across the road, waited for enemy attacks, and repulsed them in the same way.^{dlxxviii}

In the 1812 campaign, and especially at the battle of Borodino, the Russian soldiers again showed their good qualities: unflinching fortitude and stubbornness in defense.^{dlxxix} At the first battle of Polotsk, there was a lull in the fighting, when the French launched a sudden massed attack at the center of the small Russian Army of General Wittgenstein. French General St.Cyr, who commanded the French forces in this battle, wrote that the Russians displayed such bravery and intrepidity, which only rarely could be seen with troops of other nations. The Russians were caught unprepared; their battalions were separated, but they were not disordered. The Russians retreated very slowly, offering strong resistance, and, according to St.Cyr's own words, they accomplished prodigies of valor, and were forced to retreat only by the concentrated efforts of his four infantry divisions.^{dlxxx}

After the 1812 campaign, Prussia allied with Russia. Kutuzov died on 4/16 March 1813. General Wittgenstein was appointed commander of the allied troops. In 1812, he fought with mixed results against French Marshals Oudinot and St.Cyr, as they marched in the direction of St.Petersburg and established themselves at Polotsk. Wittgenstein engaged them twice in major battles, being driven from the field in both. Barclay, Tormasov, Miloradovich, and Prussian General Blücher were superior generals. Tsar Alexander and the King of Prussia were present at army headquarters and Wittgenstein proved unable to command such a large army successfully in such difficult circumstances.

In the beginning of the 1813 campaign, the allies made an attempt to attack Napoleon's army on its march near Lützen. The French were caught unaware, but instead of an immediate all-out attack, allied troops were thrown into battle little by little, and their superior cavalry was not used effectively. The tardiness of the allies gave Napoleon the time to concentrate his army, and the allies were forced to retreat.^{dlxxxi} At Bautzen, the allies fought a defensive battle, and although they were not decisively defeated, they were forced to retreat again. However, these failures did not shake the fighting spirit of the Russian troops. F.N.Glinka wrote after Bautzen:

During the Holy Patriotic War and this campaign, our soldiers have become perfectly accustomed to toil and dangers. They are cheerful while suffering hunger and privations; in the very heat of battle, under [enemy] round shot and explosive shell, [they] maintain perfect order in maneuvers, and, even when retreating, they are sure of victory. The most important is that our soldiers are not at all afraid of the French any more. In the battle of 3 May, Colonel Kern wanted to relieve a chain of skirmishers, who fought for several hours. They wrote: 'Don't relieve us! We can fight till the evening; just give us cartridges!' In many attacks of [our] cavalry, [our] infantry hurried at a run to support them and to finish the destruction of enemy columns with their bayonets.^{dlxxxii}

After the battles, General Wittgenstein was removed from his post. Barclay was appointed commander of all Russian troops. In the end of July/beginning of August 1813 Barclay wrote *General Instructions on the Order of the Troops on the March, in Camps, and in Very Battles*, in which he prescribed:

If the army intends to give a battle at a position chosen for the case, then, having taken it, one must observe an immutable rule that the first line ... by no means leave it without a special order to do that: the very defeat and flight of the enemy must not change this important rule.

To pursue the enemy is a role of the second line or reserve; if the army attacks the enemy – then one is to make it a strict rule that, having dislodged the enemy from any important point, [he is] at once to place batteries on it, to pursue [the enemy] with cavalry or light infantry, but the main part of the troops are to immediately stop and form at the conquered place ... orderliness is the surest way leading to victory ...

... on no account must anyone give orders to units, which are not under his command.^{dlxxxiii}

Barclay expressed the views of the higher Russian command on tactics. It was considered better to preserve good order and to allow the enemy to rally than to advance quickly risking to fall in disorder.

During the summer armistice, Austria joined the allies. Allied troops were organized into three major armies, and Russian troops were distributed over all the armies. The commanders of the armies were foreign generals: Austrian Fieldmarshal Schwarzenberg, General Blücher, and the Swedish Crown Prince, the former French Marshal Bernadotte. After the armistice, the main allied army, under Schwarzenberg, tried to act offensively, but were defeated due to the same tardiness. The allies failed to defeat French Marshal St.Cyr at Dresden before Napoleon arrived with his main forces. However, Napoleon arrived with much of his army and then the allies were pushed back and forced to retreat. Fortunately for them, the French Marshal Macdonald was defeated at the Katzbach River by Blücher, and Napoleon did not pursue them. French General Vandamme tried to cut their way of retreat, but he was stopped at Kulm and defeated on the next day.^{dlxxxiv}

Almost simultaneously, the French Marshal Oudinot was defeated at Dennewitz. In the battles against Napoleon's marshals and generals, the allies usually first fought defensively, but then switched to the offensive and managed to achieve complete victories, taking many prisoners and guns. Eventually, Napoleon retreated to Leipzig, all allied armies converged on the city and Napoleon was defeated by their superior numbers. Russian troops played an important role at the Katzbach River, Kulm, and Leipzig. The Russians liked the decisive Blücher and the brave Prussians, but disliked cautious Schwarzenberg and the Austrians.^{dlxxxv}

The Russian forces were distributed between the main allied armies in 1814 and were, as a result, engaged in almost every one of the major battles fought in that campaign. However, there were no changes in their methods of operation, either on a tactical or grand tactical level. Their operational methods continued in the same manner as they had in 1812 and 1813.

Footnotes

- ⁱ M.I.Kutuzov. *Documents*, vol.3, pp.586-7; Memoirs of V.I.Timofeyev, *Voyennyi Sbornik*, 1907, no.4, p.11; Davydov, D.V., *Sotchineniya D.V.Davydova. (Works of D.V.Davydov.)* Moscow, 1860, part 2, p.41; Memoirs of A de Langeron, *Russkaya Starina*, 1907, vol.132, p.156-7; Potto, *Istoriya Novorossiiskogo Dragunskigo Polka 1803-1865. (A History of the Novorossiiskii Dragoon Regiment 1803-1865.)* St.Petersburg, 1866, p.27.
- ⁱⁱ Memoirs of I.S.Zhirkevich, *Russkaya Starina*, 1874, vol.10, p.636.
- ⁱⁱⁱ Memoirs of Ya.O.Otroshchenko, *Russkii Vestnik*, 1877, vol.131, pp.519-21.
- ^{iv} Memoirs of M.M.Petrov in 1812 God. *Vospominaniya Voinov Russkoi Armii. (The Year 1812. Recollections of Warriors of the Russian Army.)* Moscow, 1991, p.170.
- ^v Memoirs of A.Euler, *Russkii Arkhiv*, 1880, book 2, p.349; Grabbe, P.Kh., *Iz Pamyatnykh Zapisok Grafa Pavla Kristoforovicha Grabbe. (From Memoirs of Count Pavel Khristoforovich Grabbe.)* Moscow, 1873, p.60.
- ^{vi} M.I.Kutuzov. *Documents*, vol.3, p.58.
- ^{vii} Lalayev, *Istoricheskii Ocherk Voenno-Uchebnykh Zavedenii. (An Historical Essay on Military Educational Establishments.)* St.Petersburg, 1880, pp.98-103.
- ^{viii} Württemberg, E. von, *Erinnerungen aus dem Feldzuge des Jahres 1812 in Rußland von dem Herzog Eugen von Württemberg. Als Commentar zu mehreren vorausgegangenen, diesen Gegenstand betreffenden schriften.* Breslau, 1846, p.50, an author's footnote.
- ^{ix} "Instruction to infantry officers on a day of battle." *Voyennyi Sbornik*, 1907, no.7, part 2, p.244.
- ^x Trukhatchev, S. (a major in the Belozerskii Infantry Regiment). "Pismo k isdatelyu." (A letter to the publisher.) *Voyennyi Zhurnal*, 1810, no.5, pp.61-62.
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- cccxxxvii Mikhailovskii-Danilevskii, A.I., *Zapiski o Pokhode 1813 Goda (Memoirs on the Campaign of 1813)*, Moscow, 1836², p.125; *Idem., Complete Set of Works*, vol.6, p.94; Memoirs of W. von Löwenstern, *Russkaya Starina*, 1900, vol.106, pp.184-7; Memoirs of M.M.Muromtsev, *Russkii Arkhiv*, 1890, book 1, p.370.
- cccxxxviii The instruction is cited in Adamovich, B., *op.cit.*, vol.3, pp.337-8.
- cccxxxix Memors of E. von Württemberg, *Voyennyi Sbornik*, 1875, no.8, part 1, p.184; Memoirs of N.P.Kovalskii, *Russkii Vestnik*, 1871, vol.91, p.102; Memoirs of N.N.Muravyev, *Russkii Arkhiv*, 1886, book 1, pp.24-5. The French casualties at Kulm were extremely heavy and the French I Corps was effectively eradicated by the battle, but most of the losses occurred during the final stage of the battle, when the French attempted to escape from the trap that had developed. It is unlikely that this single attack destroyed what, according to this statement, amounts to three battalions of infantry.
- cccxl Memoirs of A.P.Nikitin are quoted in Bogdanovich, M.I., *A History of the war of 1813*, vol.2, pp.417-8.
- cccxli Memoirs of M.M.Muromtsev, *Russkii Arkhiv*, 1890, book 1, pp.377-8; Mikhailovskii-Danilevskii, A.I., *Complete Set of Works*, vol.6, pp.301-3.
- cccxlii Mikhailovskii-Danilevskii, A.I., *Complete Set of Works*, vol.7, pp.216-23.
- cccxliii *Ibid.*, vol.7, p.393. This comment about "poor" horses and riders must relate solely to Wellington's experience in 1815, as before 1807 the French cavalry was well mounted and trained. Also, it surely does not apply to the Imperial Guard at any time.
- cccxliv *Notes on the Preparation of Young Officers for Military Actions*, vol.2, pp.209-10, 217.
- cccxlv *Ibid.*, p.37.
- cccxlvi *Ibid.*, pp.204, 214-5.

- cccxlvi Bogdanovich, M.I., *A History of the Reign of Emperor Alexander I*, vol.1, p.197.
- cccxlvi Memoirs of Don Ataman A.K.Denisov, *Russkaya Starina*, 1875, vol.1, p.254.
- cccxlix Kosciuszko T., op.cit., p.145.
- cccl Langeron, A. de, op.cit., *Russkaya Starina*, 1895, vol.83, no.5, p.192.
- cccli Brack, F. de, *Avant-postes de Cavalerie Légère*. pp.105-6, 477-9.
- ccclii *Ibid.*, pp.108, 268.
- cccliii Bennigsen, L.A.G. von, *Mémoires...*, t.1, p.182.
- cccliv M***** [Münnich] a.D. von, "Ueber Kosacken." *Der Soldatenfreund*, 1835, no.119, p.948; *Notes on the Preparation of Young Officers for Military Actions*, vol.2, p.246.
- ccclv M***** [Münnich] a.D. von, op.cit., p.948.
- ccclvi Memoirs of P.I.Fahlenberg, *Russkii Arkhiv*, 1877, book 3, p.211.
- ccclvii Memoirs of I.F.Paskevich in *The Year of 1812 in Recollections of Contemporaries*, p.82.
- ccclviii Nolan, L.E., *Cavalry: its History and Tactics*. London, 1854, pp.81-82.
- ccclix *Ibid.*, pp.83-4.
- ccclx M.I.Kutuzov. *Documents*, vol.4, part 1, p.409.
- ccclxi Memoirs of W. von Löwenstern, *Russkaya Starina*, 1901, vol.107, pp.218-9.
- ccclxii *Ibid.*, *Russkaya Starina*, 1900, vol.106, p.195; Memoirs of a Prussian officer Malachovsky, *Russkaya Starina*, 1899, vol.99, p.330.
- ccclxiii Khatov, A.I., op.cit., vol.1, pp.273, 288.
- ccclxiv Anon., "O novykh kartetchakh." (On the new cannister.) *Artilleriiskii Zhurnal*, 1811, no.1, pp.80, 82-6; the results of the tests in *Artilleriiskii Zhurnal*, 1811, no.2, pp.83-99; no.3, pp.73-90.
- ccclxv Markevich, A.I., *Rukovodstvo k Artilleriiskomu Iskusstvu*. (A Manual to the Art of Artillery.) St.Petersburg, vol.1, 1820, p.761.
- ccclxvi Gogel, I.G., Fitzum I.I., Gebgard K.K., *Osnovaniya Artilleriiskoi Nauki*. (The Basics of the Artillery Science.) St.Petersburg, 1816, part 2, p.186.
- ccclxvii Plotto, "O glavneishikh svoistvakh voisk, sostavlyayuschikh armiyu." (On the most important properties of the troops the army consists of.) *Artilleriiskii Zhurnal*, 1809, no.3, p.46, an author's footnote.
- ccclxviii Gogel, I.G., Fitzum I.I., Gebgard K.K., op. cit., part 2, p.53.
- ccclxix Medem N.V., op.cit., vol.1, p.94.
- ccclxx *Istoriya Otechestvennoi Artillerii*. (A History of Artillery of Our Country.) Moscow, vol.1, book 3, 1962, pp.37-8.
- ccclxxi Stolypin, D.A., "O upotreblenii artillerii v pole." (On the use of artillery in the field.) *Voyennyi Zhurnal*, 1810, no.2, pp.42-50.
- ccclxxii Gogel, I.G., "O taktike artilleriiskoi." (On artillery tactics.) *Artilleriiskii Zhurnal*, 1809, no.2, pp.5-7; Stolypin, D.A., op.cit., *Voyennyi Zhurnal*, 1810, no.2, p.47.
- ccclxxiii Khatov, A.I., op.cit., vol.1, p.275; Stolypin, D.A., op.cit., *Voyennyi Zhurnal*, 1810, no.2, p.43; Gogel, I.G., "Upotrebleniye artilleriiskikh orudii v deistvii protiv nepriyatela." (The use of artillery pieces in an action against an enemy.) *Artilleriiskii Zhurnal*, 1810, no.2, pp.17-20.
- ccclxxiv Khatov, A.I., op.cit., vol.1, pp.278-9; Gogel, I.G., "On artillery tactics", *Artilleriiskii Zhurnal*, 1809, no.3, pp.2-4; Stolypin, D.A., op.cit., *Voyennyi Zhurnal*, 1810, no.2, p.48.

- ccclxxv Stolypin, D.A., op.cit., *Voyennyi Zhurnal*, 1810, no.2, p.49.
- ccclxxvi Gogel, I.G., "On artillery tactics", *Artilleriiskii Zhurnal*, 1809, no.3, p.7.
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- ccclxxviii Gogel, I.G., "On artillery tactics", *Artilleriiskii Zhurnal*, 1809, no.3, pp.10-11.
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- ccclxxxiv Stolypin, D.A., op.cit., *Voyennyi Zhurnal*, 1810, no.2, p.46.
- ccclxxxv Gogel, I.G., "The use of artillery pieces", *Artilleriiskii Zhurnal*, 1810, no.1, pp.14-15.
- ccclxxxvi *Ibid.*, *Artilleriiskii Zhurnal*, 1810, no.2, p.31.
- ccclxxxvii Khatov, A.I., op.cit., vol.1, p.279; Gogel, I.G., "The use of artillery pieces", *Artilleriiskii Zhurnal*, 1810, no.1, pp.17-19; Stolypin, D.A., op.cit., *Voyennyi Zhurnal*, 1810, no.2, pp.48-9.
- ccclxxxviii Khatov, A.I., op.cit., vol.1, p.277; Ratch, V.F., "Publichnye lektsii, chitannye pri gvardeiskoi artillerii polkovnikom Ratchem." (Public lectures given to Guard Artillery by Colonel Ratch.) *Artilleriiskii Zhurnal*, 1861, no.1, part 3, p.82.
- ccclxxxix Stolypin, D.A., op.cit., *Voyennyi Zhurnal*, 1810, no.2, pp.44-5.
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- ccxc i *Ibid.*, *Artilleriiskii Zhurnal*, 1810, no.1, pp.28-30, 33.
- ccxc ii Khatov, A.I., op.cit., vol.1, pp.286-7.
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- ccxc iv Gogel, I.G., "The use of artillery pieces", *Artilleriiskii Zhurnal*, 1810, no.2, pp.2-4;
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- ccxc v Gogel, I.G., "The use of artillery pieces", *Artilleriiskii Zhurnal*, 1810, no.2, pp.20-1;
- Stolypin, D.A., op.cit., *Voyennyi Zhurnal*, 1810, no.2, pp.46-7.
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- Idem.*, "The use of artillery pieces", *Artilleriiskii Zhurnal*, 1810, no.2, p.29.
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- cd iv *Idem.*, "On artillery tactics", *Artilleriiskii Zhurnal*, 1809, no.2, pp.13-4.
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- cdvii *Idem.*, "The use of artillery pieces", *Artilleriiskii Zhurnal*, 1810, no.2, p.9-10.
- cdviii Anon., "A brief review of battle arrays used in recent times", *Voyennyi Zhurnal*, 1810, no.3, p.6; Anon., "An essay on the improvement of artillery", *Voyennyi Zhurnal*, 1810, no.3, p.22; Anon., "O konnoi artillerii." (On the horse artillery.) *Voyennyi Zhurnal*, 1810, no.10, p.23; Markevich, A.I., *A Manual to the Art of Artillery*, vol.2, 1824, pp.453, 456.
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- cdxvii Mitarevskii, N.E., *Memoirs...*, p.28.
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- cdxxiv Lyubenzkov, N., *Rasskaz Artillerista o Dele Borodinskoy. (An Artilleryman's Story about the Borodino Action.)* St.Petersburg, 1837, p.40.
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- cdxxvii Mikhailovskii-Danilevskii, A.I., *Complete Set of Works*, vol.5, pp.84-5.
- cdxxviii *Voinskii Ustav o Stroyevoi Peshei Artilleriiskoi Sluzhbe. (Military Regulations on the Drill of the Foot Artillery Service.)* Warsaw, vol.1, 1824, pp.12-5.
- cdxxix Norov, A.S., *Voyna i Mir 1805-1812. (War and Peace 1805-1812.)* St.Petersburg, 1868, pp.34, 38, 41.

- cdxxx Khatov, A.I., *op.cit.*, vol.1, pp.139, 278; Plotto, "On the most important properties of the troops the army consists of", *Artilleriiskii Zhurnal*, 1809, no.3, p.43.
- cdxxxⁱ Ratch, V.F., *op.cit.*, *Artilleriiskii Zhurnal*, 1861, no.10, part 3, pp.771-2.
- cdxxxⁱⁱ Gippius, A.I., *op.cit.*, p.317.
- cdxxxⁱⁱⁱ *Notes on the Preparation of Young Officers for Military Actions*, vol.2, pp.349, 352.
- cdxxx^{iv} Markevich, A.I., *A Manual to the Art of Artillery*, vol.2, pp.454-5; *Military Regulations on the Drill Foot Artillery Service*, pp.14-5.
- cdxxx^v Markevich, A.I., *A Manual to the Art of Artillery*, vol.2, pp.455-6.
- cdxxx^{vi} Gogel, I.G., Fitzum I.I., Gebgard K.K., *op.cit.*, part 2, p.124.
- cdxxx^{vii} Lyubenkov, N., *op.cit.*, p.48. It should be noted that modern artillery theory indicates that a salvo of all guns striking in one great blow would have a greater psychological impact on the target than the impact of several rounds spread over a few minutes. It is this "time on target" effect that the American artillery perfected in WWI and used so decisively in WWII.
- cdxxx^{viii} Memoirs of P.I.Fahlenberg, *Russkii Arkhiv*, 1877, book 3, p.211.
- cdxxx^{ix} Lyubenkov, N., *op.cit.*, p.58.
- cdxl Markevich, A.I., *A Manual to the Art of Artillery*, vol.2, pp.503-4.
- cdxli An order of Barclay de Tolly (25 August/6 September 1812), in *Borodino. Documents, Letters, Recollections*, p.90.
- cdxlii Memoirs of G.P.Meshetich in *The Year 1812. Recollections of Warriors of the Russian Army*, p.79.
- cdxliiⁱ Radozhitskii, I.T., *Campaign Memoirs...*, vol.1, part 1, p.32; Mitarevskii, N.E., *Memoirs...*, p.20.
- cdxliiⁱⁱ Radozhitskii, I.T., *Campaign Memoirs...*, vol.1, part 1, p.195; Mitarevskii, N.E., *Memoirs...*, pp.20, 53.
- cdxliiⁱⁱⁱ Radozhitskii, I.T., *Campaign Memoirs...*, vol.1, part 1, pp.39, 68, 119; part 2, pp.254-5; Mitarevskii, N.E., *Memoirs...*, p.35.
- cdxlii^{iv} Mitarevskii, N.E., *Memoirs...*, p.35; Memoirs of A.I.Antonovskii in Kharkevich, V.I. (ed.), *op.cit.*, issue 3, pp.60-5.
- cdxlii^v Radozhitskii, I.T., *Campaign Memoirs...*, vol.1, part 1, pp.245-9; part 2, pp.98, 203, 236-7.
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- cdli Quoted in Muir R., *Tactics and the Experience of Battle in the Age of Napoleon*. Yale University Press, New Haven and London, 1998, p.38, with a reference to Baron de Jomini, *The Art of War* translated by Capt. G.H.Mendell and Lt. W.P.Craighill (Westport, Connecticut, Greenwood, 1971), p.317.
- cdlii Memoirs of I.F.Paskevich in Kharkevich, V.I. (ed.), *op.cit.*, issue 1, p.101; Mikhailovskii-Danilevskii, A.I., *Complete Set of Works*, vol.4, p.338-9.
- cdliiⁱ Pisarev, A.A., *War letters*, part 1, p.353.
- cdliiⁱⁱ Mikhailovskii-Danilevskii, A.I., *Complete Set of Works*, vol.7, p.84.

- cdlv *Notes on the Preparation of Young Officers for Military Actions*, vol.2, pp.146-7, 153; Fedem N.V., *op.cit.*, vol.2, p.135.
- cdlvvi Memoirs of Ya.O.Otoshchenko, *Russkii Vestnik*, 1877, vol.131, p.517; Memoirs of N.M.Raspopov, *Russkii Arkhiv*, 1879, book 3, p.37.
- cdlvvii Markevich, A.I., *A Manual to the Art of Artillery*, vol.2, pp.472-3.
- cdlvviii Württemberg, E. von, *Erinnerungen...*, p.63.
- cdlix The report of K.F.Löwenstern in *Borodino. Documents, Letters, Recollections*, p.184.
- cdlix The instruction is cited in Adamovich, B., *op.cit.*, vol.3, p.338.
- cdlxi Memoirs of I.F.Paskevich in *The Year 1812 in Recollections of Contemporaries*, p.101; Larionov A.P., "Ispolzovaniye artillerii v Borodinskom srazhenii." (The use of artillery in the battle of Borodino.) *The Year 1812. To the 150th Anniversary of the Patriotic War*, pp.106-7.
- cdlxii Memoirs of A.P.Ermolov in *Borodino. Documents, Letters, Recollections*, pp.354-5.
- cdlxiii A report of Major-General I.O.Suchasanett, commander of the Russian artillery, in *The Campaign of the Russian Army against Napoleon in 1813*, pp.358-9.
- cdlxiv Ratch, V.F., *op.cit.*, *Artilleriiskii Zhurnal*, 1861, no.10, part 3, pp.810-3. Ratch heard all this personally from Kozen.
- cdlxv The French often did this because their horse artillery was formed by mixing light cavalry with trained gunners during the Revolution and the tradition of acting as cavalry continued into the Napoleonic era.
- cdlxvi Memoirs of A.P.Nikitin in Kharkevich, V.I. (ed.), *op.cit.*, issue 2, p.146; Mikhailovskii-Danilevskii, A.I., *Complete Set of Works*, vol.5, p.262.
- cdlxvii Liprandi, I.P., *Materialy dlya Otechestvennoi Voyny 1812 goda. (Materials for the [history of the] Patriotic War of 1812.)* St.Petersburg, 1867, p.202, an author's footnote 2; Mikhailovskii-Danilevskii, A.I., *Complete Set of Works*, vol.6, p.254.
- cdlxviii Mikhailovskii-Danilevskii, A.I., *Complete Set of Works*, vol.7, p.85. A British horse battery did the same thing in the Peninsula.
- cdlxix Radozhitskii, I.T., *Campaign Memoirs...*, vol.2, part 3, p.42.
- cdlxx M.I.Kutuzov. *Documents*, vol.4, part 1, p.139; *Borodino. Documents, Letters, Recollections*, p.79.
- cdlxxi Norov, A.S., *Voina i Mir 1805-1812. (War and Peace 1805-1812.)* St.Petersburg, 1868, p.30; the order is cited in Ratch, V.F., *op.cit.*, *Artilleriiskii Zhurnal*, 1861, no.10, part 3, pp.807-8.
- cdlxxii Mitarevskii, N.E., *Memoirs...*, pp.95, 102.
- cdlxxiii *Ibid.*, pp.62-78.
- cdlxxiv M.I.Kutuzov. *Documents*, vol.4, part 1, p.351.
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- cdlxxvi The instructions cited in: Adamovich, B., *op.cit.*, vol.3, p.338.
- cdlxxvii The report of K.F.Löwenstern in *Borodino. Documents, Letters, Recollections*, pp.183, 235.
- cdlxxviii Memoirs of A.P.Nikitin in Bogdanovich, M.I., *Istoriya Voyny 1814 Goda vo Frantsii i Nizlozheniya Napoleona I, po Dostovernym Istochnikam. (A History of the War of 1814 in France and of the Deposition of Napoleon I [based] on Reliable Sources.)* St.Petersburg, 1865, vol.2, p.63.
- cdlxxix Memoirs of N.N.Muravyev, *Russkii Arkhiv*, 1885, book 3, p.235.

- cdlxxx Mitarevskii, N.E., *Memoirs...*, p.39.
- cdlxxxi Radozhitskii, I.T., *Campaign Memoirs...*, vol.1, part 2, pp.269-72.
- cdlxxxii *Ibid.*, vol.1, part 1, pp.83-4 ??; Mitarevskii, N.E., *Memoirs...*, p.85; Norov, A.S., *op.cit.*, p.38; Lyubentkov, N., *op.cit.*, p.47-8, 58; *Memoirs of A.K.Karpov, Trudy Vitebskoi Utchenoi Arkhivnoi Komissii (Works of Vitebsk Academic Archive Commission)*, vol.1, Vitebsk, 1910, pp.15-6.
- cdlxxxiii *Memoirs of I.F.Paskevich in Kharkevich, V.I. (ed.), op.cit.*, issue 1, p.89.
- cdlxxxiv *Memoirs of N.N.Muravyev, Russkii Arkhiv*, 1885, book 3, p.249.
- cdlxxxv Mikhailovskii-Danilevskii, A.I., *Complete Set of Works*, vol.4, p.257.
- cdlxxxvi Plotho, C. von, *Der Krieg in Deutschland und Frankreich in den Jahren 1813 und 1814*, vol.2, p.168 (Dennewitz); *The Campaign of the Russian Army against Napoleon in 1813*, p.188 (Bautzen).
- cdlxxxvii Velyaminov, *op.cit.*, *Voyennyi Zhurnal*, 1810, no.12, p.48; Radozhitskii, I.T., *Campaign Memoirs...*, vol.1, part 2, pp.215-6.
- cdlxxxviii Ratch, V.F., *op.cit.*, *Artilleriiskii Zhurnal*, 1861, no.11, part 3, p.849.
- cdlxxxix *Memoirs of I.S.Zhirkevich, Russkaya Starina*, 1874, vol.11, pp.422-3.
- cdxc *Radozhitskii, I.T., Campaign memoirs...*, vol.1, part 1, pp.78-9.
- cdxci *Memoirs of G.P.Meshetich in The Year 1812. Recollections of Warriors of the Russian Army.*, p.79.
- cdxcii Ermolov, A.P., *Memoirs...*, p.169; *Memoirs of G.P.Meshetich, in The Year 1812. Recollections of Warriors of the Russian Army.*, p.79; Radozhitskii, I.T., *Campaign Memoirs...*, vol.1, part 1, p.118; *Memoirs of N.N.Muravyev, Russkii Arkhiv*, 1885, book 3, pp.233, 257; Kazakov I.M., "The 1814 campaign in France", *Russkaya Starina*, 1908, vol.133, p.534.
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- dlxxxv Had fate been different, Vandamme, who was acting in the best traditions of the French Army, might have brought about a crushing defeat of the Allied Army of Bohemia. Vandamme was first stopped by the Russian Guard (Ermolov) and the remnants of the 2nd Russian Corps (Würtemberg), under the command of Lieutenant-General Ostermann-Tolstoi. The Russians fought for almost a whole day against superior enemy numbers, and although there were a few very critical moments (Ostermann-Tolstoi lost his arm), Vandamme had failed to push them back before the arrival of reinforcements from Teplitz and thus lost the opportunity to cut the line of retreat of the main allied army. Due to a fluke of fate, the Prussian General Kleist turned left north of

the Erzegeberg, taking another route, and arrived in Vandamme's rear, cutting him off. Vandamme's I Corps totally collapsed and was destroyed. After the battle, the French corps was disbanded and its survivors distributed to other corps.

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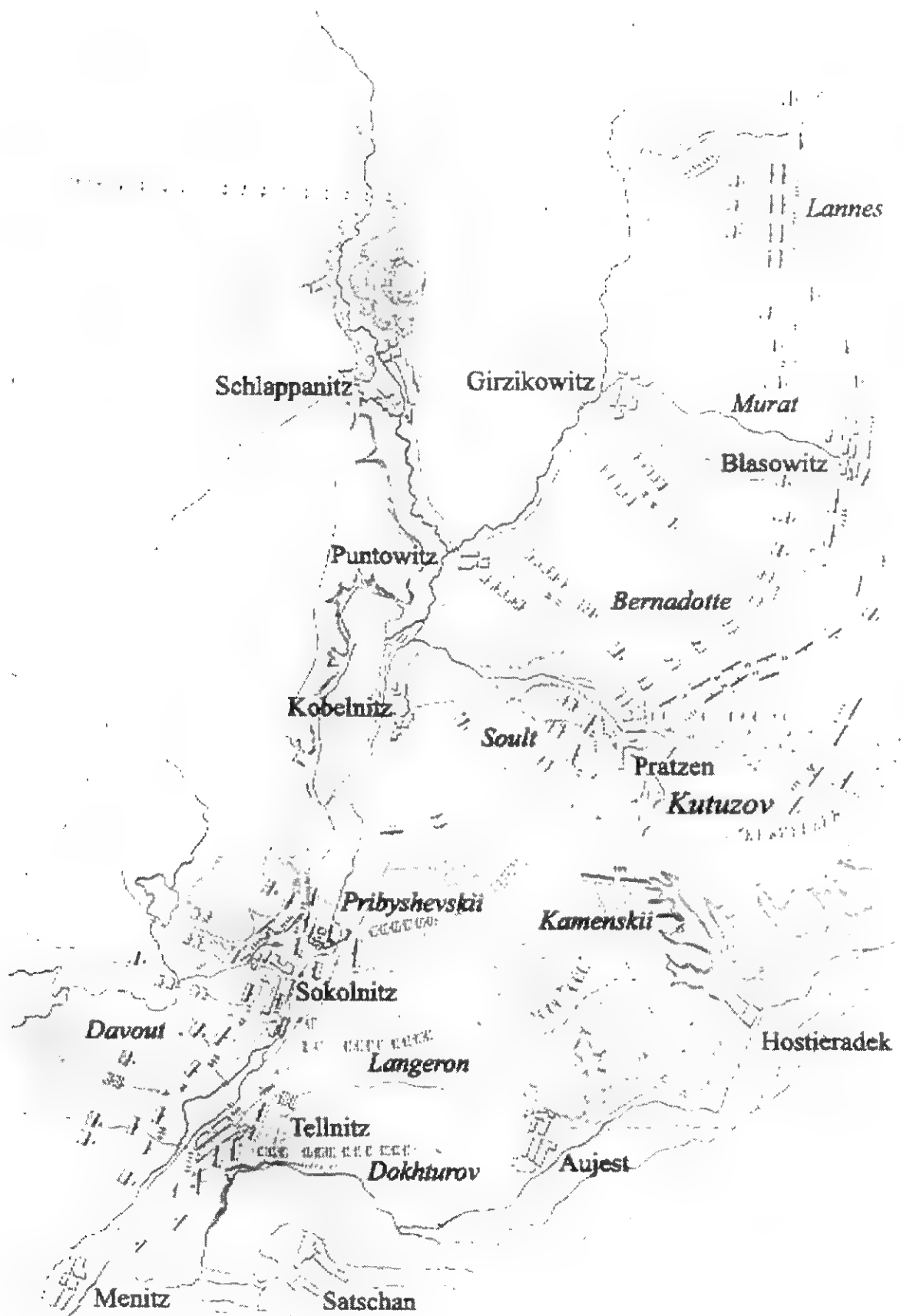
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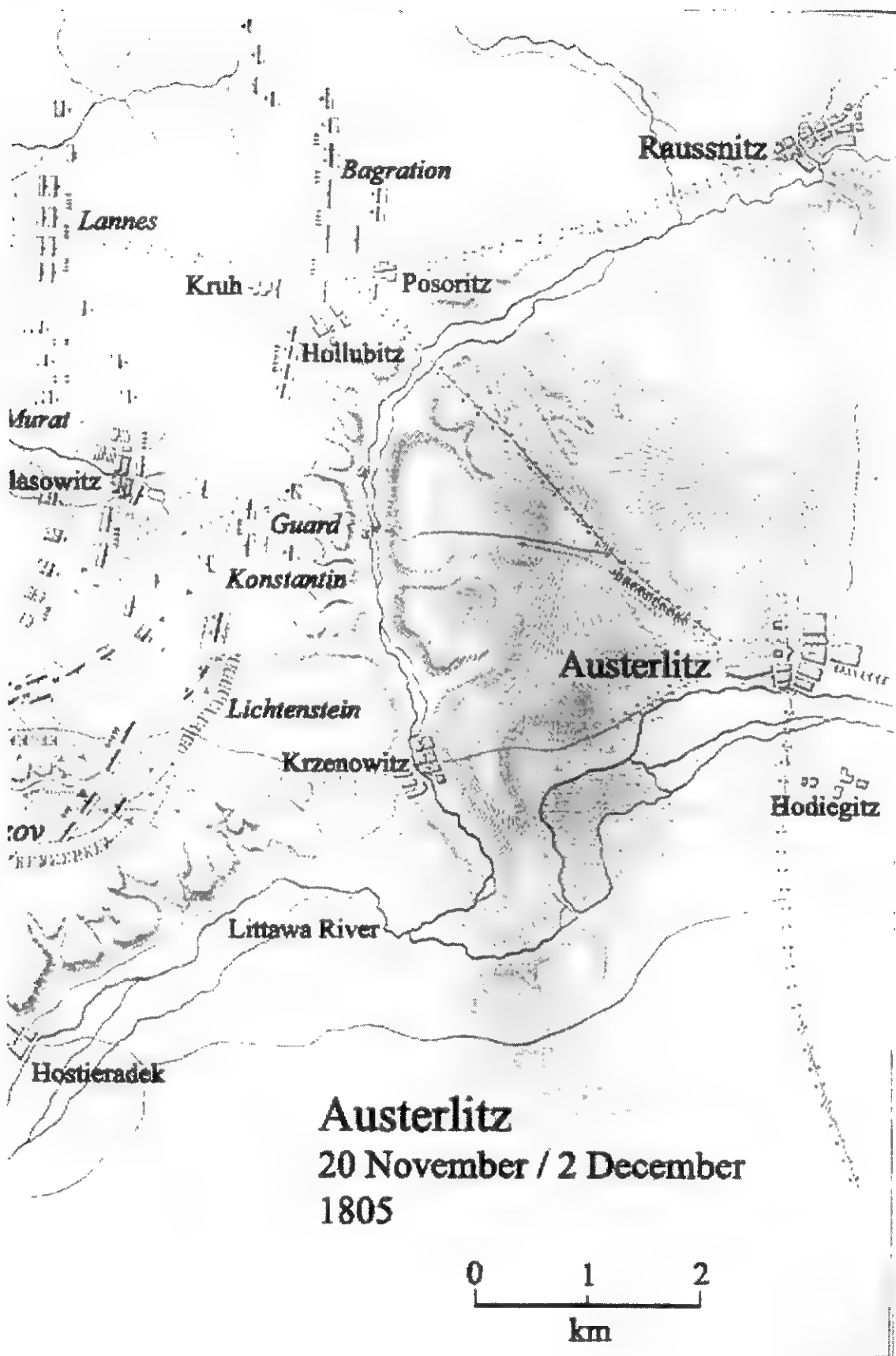
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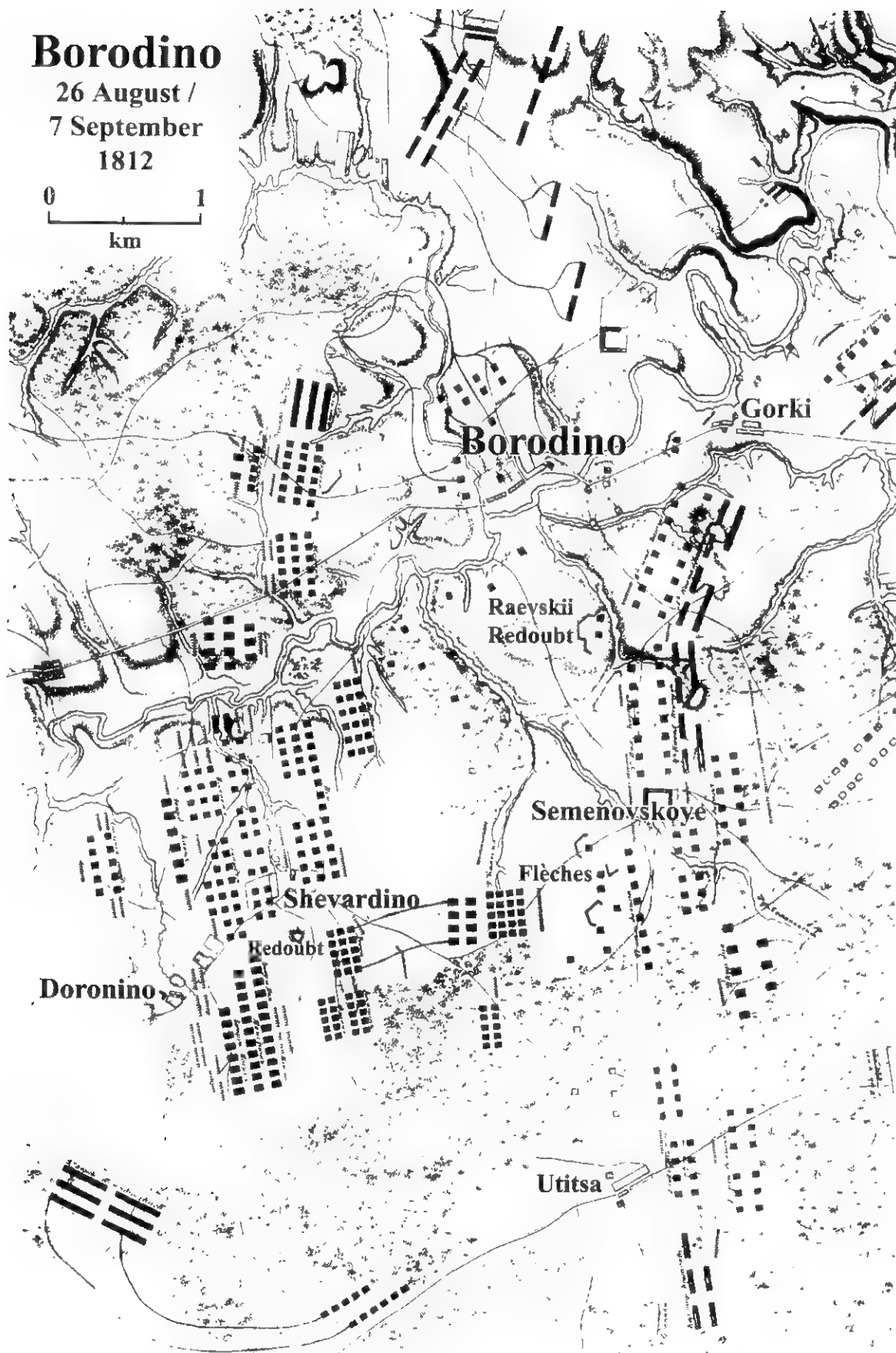
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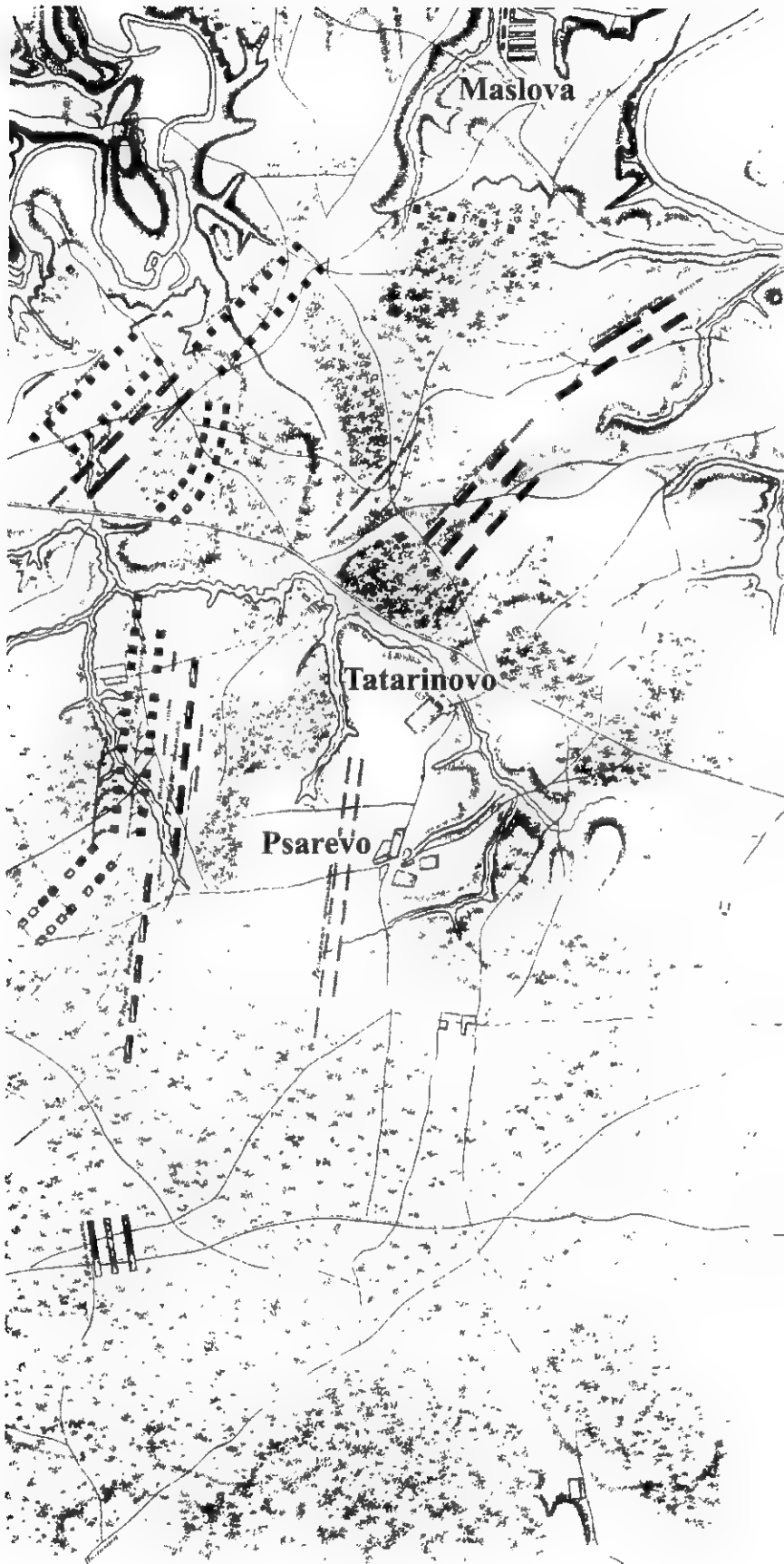
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